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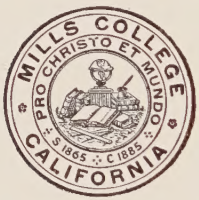

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MAIN STREET IN LOS ANGELES

LOS ANGELES IN THE SUNNY SEVENTIES

A FLOWER FROM THE GOLDEN LAND

BY LUDWIG LOUIS SALVATOR

Translated by Marguerite Eyer Wilbur

Introduction by Phil Townsend Hanna

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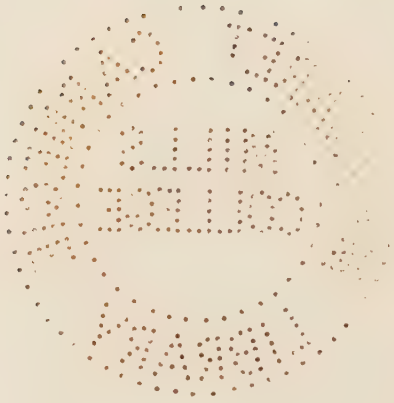
Los Angeles, 1929



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THE INTRODUCTION

I

"El Pueblo" came of age between dawn and dusk on the 5th day of September, in the year of our Lord, 1876, and of the Independence of the United States of America, exactly the one-hundredth. At two o'clock in the afternoon, more or less, at a tiny settlement then and since known as Lang's Station, sequestered in the depths of Soledad Cañon, Charles F. Crocker drove the golden spike that completed the Southern Pacific Railroad and gave to Los Angeles its first all-rail contact with the Atlantic Seaboard. The golden spike and the silver hammer with which it was driven were the gift of an enterprising jeweler of El Pueblo, and the event was properly celebrated that evening at a Lucullian banquet at Union Hall. Inspired, no doubt, by a liberal indulgence in Don Mateo Keller's finest vintages, of which there was an ample supply, a local editor delivered himself of the following opinion:

"The road will prove the open sesame to a region incalculably "rich in the precious metals; and, through the influence it will ex- "ert in stimulating their production, its completion will be felt in "the commerce of the whole world. . . . We can take a legitimate "pride in our young commonwealth's ability to undertake and "carry to completion a work of such magnitude. We have built it "in less time than was consumed in the construction of the Penn- "sylvania Central by the great State of Pennsylvania, and we have "done it too in a season when all the money markets in the world, "from Vienna to London, were perturbed and in a distrustful "mood."

Extravagant and euphemistic as these assertions may have seemed to the more conservative-minded then, they were actually both veracious and warranted. The completion of the Southern Pacific was the most important event in the growth of Los Angeles

and "Semi-Tropical California," as the vicinage was pridefully known, since 1781 when Felipe de Neve had left a heterogeneous company of forty-six Spaniards, negroes, Indians and *mestizos,* to found a city upon the banks of the Río Porciúncula.

Into the oblivion of things past had gone the slothful days of the Spanish occupation and the predatory and equally meretricious era of the gold-rush. The first seventy-five years of California's existence as a civilized province was as beautiful, from the viewpoint of abstract æstheticism, as the golden years of Greece and Rome, but the period similarly, was a decadent one. It was foredoomed to vanish. From practical considerations its people had contributed nothing to the advancement of culture or the economic betterment of the land they had settled upon.

The prevailing attitude was one of procrastination. Nature was beneficent and the necessaries of life were abundant and at their very elbows. In possession of such leisure other nations and peoples have developed arts and crafts that have excited the admiration of the world. But not Californians. Deeper and deeper they sank in the vice of their indolence; more and more did they take from their land, and less and less did they put into it.

The advent of gold-days merely intensified the tempo of the "taking." The change was simply one of degree, and the economic aspect became worse. Men gutted the earth of its riches and dissipated their new-found wealth on a thousand inconsequential baubles. Fortunately the mad debauch of a hundred years was in its last convulsion. A transvaluation of values was imminent.

II

THE "sunny seventies" brought the dawn of a new day for Southern California. Into remote places the word had gone of its undeniable advantages. Miners in their infrequent letters interspersed references to the fruitfulness of the land and the salubrity of the climate among the chronicles of their tribulations and their triumphs;

returning traders dilated upon its fine valleys and its timber-clad mountains. The unorganized and unconscious rhapsodies became a veritable pæan of praise, piquing the curiosity and arousing the cupidity of thousands of ambitious men and women, dissatisfied with their lot elsewhere.

And so they were coming to Southern California, a slow and resolute current of them. The *Senator,* the *Orizaba,* and the *Ancon* were discharging a constant human cargo at Wilmington and Santa Monica. And they were coming, too, by stage, and by stage-and-rail where such transport was the best available. The Middle West and the Mississippi Valley were contributing their quotas; the late Southern Confederation now convalescing from the scars of war bid reluctant farewell to its favorite sons and daughters who sought a new dispensation in a new *milieu;* New England, sterile from a century and a half of heavy bearing, was prominently represented; even the Old World had heard the siren lure, and the sturdy Norse, the thrifty Teuton, and the irrepressible Gaul could be distinguished among the multitude that trod Los Angeles streets.

The trickling stream became a tide of sizeable proportions when the Southern Pacific was completed and the hitherto occult call had become articulate through the broadcasting of organized information about the resources and possibilities in this newest of lands.

The settlers of the "sunny seventies" had no illusions. Elsewhere they had learned the first principles of social economics, though I hardly think they knew them by that name. They knew, for instance, that land must be cultivated; that there must be a "giving" as well as a "taking," a sowing as well as a reaping. They were acquainted with toil and respected it. The *Los Angeles Express,* on July 8, 1876, remarked:

"What Los Angeles wants is the right kind of population and "plenty of it. With that we shall soon build up one of the most at-

"tractive and wealthiest counties in the country and march out on "a splendid era of prosperity....Southern California now presents "the most inviting point for settlement in the Union."

It was true. Los Angeles did need "the right kind" of settlers, and it was getting them. There was a new spirit in the air. Industry had displaced indolence; enterprise and thrift had been substituted for eternal diversion and profligacy. The Spanish-Californians gazed upon the scene with a contempt for those who would so far demean themselves as to work, but the transformation was progressing and no human hand could stop it.

Great ranchos began to slip from the grasp of the original grantees, who no longer were competent to cope with the changing environment. Fruits and cereals were bountifully produced on lands that hitherto had known nought but thundering herds, wantonly slaughtered by the thousands for their hides and tallow.

And, strange to relate, for the first time in the annals of California, land began to have a value. The values were ridiculous, of course, judged from the standards of the present, but that it had a worth was a portentous sign—a sign that it had inherent potentialities and merited conservation and nurture. And there was abroad a feeling, not yet fully sublimated into a public consciousness despite the perfervid editorial utterances of seven Los Angeles newspapers, that Southern California had a Destiny!

Despite the communal industry, there existed no slavery to the land, or to business. Work, it was recognized, was a necessity, but diversion was likewise. It was this temperateness, this realization that work and play, drink and food, rest and reflection, all have their related places in the cosmic scheme of things, that made the "sunny seventies" the most glorious decade in all Los Angeles' history. There was liberty and tolerance without restrictive prohibitions, freedom of action and thought between the broad pillars of public decency and community welfare. The Round House was as popular of a Sunday as the churches and none came under the cen-

suring finger of public scorn because he frequented this popular retreat where "are to be seen elegantly portrayed the primeval family, Adam and Eve, Cain and Abel; also the old serpent and the golden apples, all according to the record."

Nor was one ostracized if, basket-lunch on arm, he hied himself to the station of the Los Angeles and Independence Railroad to embark upon one of the company's two daily trains for Santa Monica, there to disport himself. So popular a holiday was this that on one occasion eleven cars were required to transport the festive-bound that presented themselves!

III

Onto this scene there came in the very year of 1876, Ludwig Salvator, Archduke of Austria. Salvator was the son of Leopold II, last Grand Duke of Tuscany, and had been born in Florence on August 4, 1847. As a youth he developed a veritable passion for travel and natural science. Unlike so many noblemen of similar estate, he rejected the pomp and circumstance of court life and turned his attention to scholarly pursuits. Of the living languages he spoke twelve. Until he was twelve years old he lived in Florence, and from 1859 to 1870 in Rome. From there he started a series of voyages that took him into virtually every country in the world and resulted in a series of valuable monographs on the various peoples whom he visited. Later he took up residence on the Island of Mallorca, whence he continued his journeys. He was commander of the 58th regiment of Austrian infantry, and in 1889 was named a member of the Imperial Austrian Academy of Sciences and the Bohemian Academy of Sciences. Early in the '80s his geographical studies won the esteem of the Royal Geographical Society of Great Britain, which elected him an honorary member, of whom there were at that time but eight others among a total membership of some 3500 Fellows. Salvator's books ranged, in size, from small duodecimos such as his *Eine Blume aus dem*

Goldenen Lande oder Los Angeles to mammoth parchment-bound folios such as *Sommertage auf Ithaka,* and all were devoted to some point of geographical interest. Many of them dealt with the isolated and little known islands of the Mediterranean and Aegean. In the main they are scientific to the point of being repellent and virtually all are accompanied by large folding maps in color, and numerous drawings, all of which the author made himself.

It is impossible to present an accurate bibliography of Salvator's works here, due to the modesty that led him to omit his name from many of them. Thirty-five volumes, however, have been identified, and there are six more in existence which doubtless came from his pen but for which there is no conclusive identification. Salvator started writing in 1873, producing in that year two books, *Der Djebel Esdmun,* and *Levkoskia; Die Hauptstadt von Cypern.* As the years followed he produced one or more volumes almost every year until shortly before his death, which occurred in the Castle of Brendes, near Prague, in the middle of October, 1915.

Among his many published books are, besides those above mentioned: *Eine Jachtreise in die Syrten* (1874); *Eine Spazierfahrt im Golf von Korinth* (1876); *Die Balearen in Wort und Bild* (1878); *Eine Blume aus dem Goldenen Lande oder Los Angeles* (1878); *Die Karavanenstrasse von Aegypten nach Syrien* (1878); *Die Serben an der Adria* (1879); *Hobarttown Oder Sommerfrische in den Antipoden* (1886); *Um die Welt ohne zu wollen* (1886, 4th Ed.); *Paxos und Antipaxos im Jonischen Meere* (1887); *Los Angeles in Sudkalifornien* (1887); *Benzert* (1897); *Cannosa* (1897); *Die Cyparischen Inseln* (1897); *Lose Blätter aus Abbazia* (1897); *Alboran* (1898); *Ustica* (1898); *Bougie* (1899); *Die Insel Giglio* (1900); *Ramleh als Winteraufenthalt* (1900); *Helgoland* (1901, 2nd Ed.); *Sommertage auf Ithaka* (1903); *Zante* (1904); *Eine Jachtreise an den Kusten von Tripolitanien und Tunisien* (1905); *Märchen aus Mallorca* (1905); *Rondayes de Mallorca* (1905); *Spanien in Wort und Bild* (1905); *Wintertage auf Ithaka* (1905);

Columbretes (1905); *Das was verschwinden* (1905); *Einige Worte über Kaymenen* (1905); *Der Golf von Buccari:-Porto Re* (1905); *Bizerta und seine Zukunft* (1905); *Schiffbruch* (1905); *Katalina* (1905); *Über die Durchstich der Landenge von Stagns* (1906); *Parga* (1907); *Anmerkungen über Levkas* (1908); *Die Felsenfesten Mallorcas* (1910); *Einiges über Weltausstellungen* (1911); *Sommerträumerein am meeresufer* (1912); *Hafen von Porto-Palma in der Bucht von Palma de Mallorca* (1913).

In Salvator's formidable array of opera are to be found the method of the scientist and the hand of the scholar. Thorough observation, painstaking research, that "infinite capacity for taking pains" that is said to signify genius—all are there. But in two in particular there are, moreover, additional qualities that set them far ahead of the main bulk of his work. His *Die Karavanenstrasse von Aegypten nach Syrien* which appeared in German first in 1878, was regarded so highly in England that it was put into English three years later.

The other and, perhaps, the most important of all of Salvator's studies, *Eine Blume aus dem Goldenen Lande oder Los Angeles,* appears here in the first full and complete translation from the German, by Marguerite Eyer Wilbur. "Eine Blume," as it has come to be familiarly known by students of California history and collectors of Californiana, was the fruit of Salvator's visit to Southern California in 1876. With the characteristic Teutonic flair for details, Salvator spent the winter of '76 in and about Los Angeles, interviewing its principal citizens and studying the Spanish and English histories of California which he assimilated with as much ease as he did the literature in his native tongue. He journeyed extensively and his facile pen was as busy in drawing the intriguing compositions his eyes fell upon as it was in recording the observations that were later to be made the basis of his book.

The text of his work reveals that he was as enthusiastic as the most ardent native about this region. It had its ludicrous aspects to

one reared in the ſtaid precincts of the Old World no doubt. The bloom of youth that was then upon the cheeks of Los Angeles was not entirely free from the pimples of adolescence. The vagaries and foibles of the age have become legend. A local newspaper came into the field with this egregious salutatory:

"It is an exalted privilege to write for a full-hearted, intelligent, "country-loving people; to trace the characters of truth and hon- "eſt impulse, giving the leaves to the iron Sibyl who presses them "to her breaſt and flings them out in multiplied thousands to the "gale."

Salvator saw this and countless other manifeſtations of the current immaturity. But he saw more; he saw the germ of a great community, and growth and prosperity somewhere behind the miſty veil of the future. And when he wrote, he had the grace and forbearance to overlook those shortcomings that, as a target for satire, might have made his book a beſt seller. Inſtead of making of this ſection of America an object of ridicule as did so many of his contemporaries, he weighed all the evidence, presented all the facts that were pertinent, and concluded that Southern California held more than promises for the coloniſt. How many of his countrymen were moved to immigrate to this territory through Salvator's book it is impossible, of course, to say, but there can be no doubt that it proved an influence of vaſt import in augmenting the exiſting German colony. That it was avidly read in Europe is indicated by the fact that it was reprinted in 1885 under the title *Los Angeles in Sudkalifornien.*

Los Angeles in the Sunny Seventies, as "Eine Blume" has been rechriſtened (and quite appropriately, too) in this English version, is, in fact, the hiſtory of Southern California in the transition period, quite as essential to a proper knowledge of the formative influences that have made a modern commercial Tyre out of a lazy Mexican pueblo, as Bell's *Reminiscences of a Ranger,* or Newmark's *Sixty Years in California.*

The preparation of the present translation of "Eine Blume" has been the labor of many enthusiastic hearts and hands, and the publisher and translator beg this occasion to acknowledge the coöperation of Everett Perry, Los Angeles City Librarian, who made the original German text available; Miss Laura Cooley, of the Los Angeles Public Library, who has toiled indefatigably in the clearing up of questionable historical references; Mrs. A. H. Keidel, whose aid in the rendering of involved German passages has been invaluable; C. Palmer Connor, of the Title Insurance and Trust Company, who graciously assisted in the identification of obscure geographical points; Arthur Ellis, Robert Ernest Cowan, and the multitude of others who, through their whole-hearted encouragement, have made the work a genuine joy.

PHIL TOWNSEND HANNA

Los Angeles, California.
June 21, 1929.

A FLOWER FROM THE GOLDEN LAND

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FOREWORD

HEALTH RESORTS *are becoming daily more and more popular. With the approach of the winter season there is always a heavy migration toward the south, a migration that occurs not only in Europe, but also across the ocean. Thousands journey annually from the frigid climate of the northeastern states to the milder lands of Florida or Southern California. However, there are many who cannot afford to migrate like birds of passage and who are thus forced to see their families endure the harsh, unpleasant winters of their own country. To these, notwithstanding, an extraordinary opportunity stands open; to pioneer to a more favorable country where health and prosperity beckon. For this purpose no land offers greater advantages and is better adapted for European migration than California; a land that combines fertility of soil and opportunity for industrial development, with a healthful climate; a land where harsh winters and hot summers are unknown.*

Of late, much has been done to promote migration to America. Many pioneers, however, remain in the already thickly-populated eastern states, coming there often without means, and frequently with little ambition. These often return home disappointed. Notwithstanding, vast opportunities are to be found in the far West. But above all else to America must be taken industry and good will; these are required in far greater measure than in our own land. Given these two qualities it is a comparatively simple matter to make a good living, although the possession of some capital is of far more benefit than in Europe, since it paves the way for acquiring considerable wealth. My intention, in the following description of this glorious corner of California, is to show its possibilities, and reveal how readily results can be accomplished. If, by so doing, I shall have assisted anyone in the founding of a pleasant, happy home, I shall be satisfied. The data used in this account

have been collected partly on the ground, partly procured for me through local friends, especially Dr. Vincent Gelcich, and partly taken from various periodicals in California. Among the latter are the monthly journal, HOMES IN CALIFORNIA AND THE PACIFIC COAST *(San Francisco); the* HERALD NEWSPAPER *for 1876; and articles on Southern California written in 1875 for the Anaheim Gazette by W. R. Olden. Added to these are the following volumes: Major Ben C. Truman,* SEMI-TROPICAL CALIFORNIA, *(S. F., 1874); Charles Nordhoff,* CALIFORNIA FOR HEALTH, PLEASURE, AND RESIDENCE, *(New York, 1875); John S. Hittell,* THE RESOURCES OF CALIFORNIA, *(S. F., 1875); Mary Cone,* TWO YEARS IN CALIFORNIA, *(Chicago, 1876).*

In conclusion it should be observed that the conditions as represented refer to the time of my visit there in 1876, a comment that is especially pertinent in view of the rapid development throughout America, and especially in California.

Zindis *near Triest, September, 1878*

CHAPTER

I

GENERAL CONDITIONS

The name Southern California usually refers not to the southern tip of the peninsula that is still under Mexican rule, but to territory in California, extending from the thirty-sixth parallel down to the southern boundary of the United States. Southern California contains 7 ducal states or counties: San Diego, San Bernardino, Los Angeles, Ventura (an abbreviation for San Buenaventura), Santa Barbara, San Luis Obispo, and Kern Counties. With the single exception of the latter, the Spanish Missions[1] bearing the same names formed the nucleus of these counties.

Of all these counties, none has been so favored in every way by nature as that of Los Angeles—the subject of this sketch—which can most suitably be called *A Flower from a Golden Land*.

With an area of some 5,600 square miles—about 3,600,000 acres—it is bounded on the north by Kern County; this line runs due east and west for approximately 70 miles. On the east, where it touches the county of San Bernardino, the boundary line stretches almost directly north and south, being 100 miles or more in length. Off toward the southwest along a coastline of approximately 100 miles lies the Pacific. On the west, the boundary-line is formed by Ventura County; this line runs northeast for 15 miles and northwest for 45 miles. The major portion of this county thus forms a parallelogram measuring, roughly, 70 miles from east to west and about 60 miles from north to south. This has a triangular section projecting out from its southeastern corner, which has a northern line of 70 miles and an eastern line of 40 miles, and which adjoins the county of San Diego.[2]

Approximately 35 miles in a southerly direction from this imaginary boundary-line rises the sharply-defined mountain range known as the Sierra Madre which, as it stretches off toward the north, forms the San Fernando, San Gabriel, and San Bernardino ranges. These, varying in height from 3,000 to 9,000 feet, form a bulwark which is virtually unbroken except where, at one point, the latter ranges are cut at an elevation of 4,676 feet by the Cajon Pass.

These run in an easterly and southeasterly direction paralleling in a general way the coast, lying, on an average, about 33 miles inland from the ocean. They form two main watersheds; the northern, stretching from the Santa Clara Valley which is watered in its northern part by the Santa Clara River down to the Mojave Desert, is the mining district of the county; and the southern, a valley 36 miles long and 75 miles wide stretching off toward the south, which is watered by three rivers, the San Gabriel, the Los Angeles, a tributary, and the Santa Ana, that forms the backbone of the agricultural wealth of the county of Los Angeles.

The coast-line of the county extends from *Punta Maga*[3] in the north down to where it terminates at Point San Mateo in the south. Both in the north and south near the coast mountains rise—the Sierra de Santa Monica in the north and the San Juan range in the south,—which also serve as boundaries for the flat farmlands of the county. From these projects, however, a hilly promontory almost square in shape, whose northern and southern tips are called respectively, Point St. Vincent and Point Firmin. These both form, and, at the same time separate from one another Santa Monica and San Pedro Bays, the two largest natural harbors in the county.

Cities and towns located in the county are the following: Los Angeles, Anaheim, San Gabriel, El Monte, Wilmington, Downey-City, Spadra, Santa Ana, Westminster, Compton, San Fernando, Florence, Richland, Tustin-City, and San Juan Capistrano. With the exception of the latter, which was the site of the mission, these towns are of recent growth.[4]

CHAPTER

2

CLIMATE

Comparatively few regions have a finer climate than the long stretch of coastal country lying within the confines of Santa Barbara, Los Angeles, and San Diego Counties. That of Los Angeles, lying as it does between them, is especially balmy. Indeed, the climate in Southern California—this refers to the southern part of the county lying below the Sierras—is such that it is surpassed by no other region in the new world. Extremes of heat and cold are unknown; it is a land of perpetual spring. In winter, the days are invariably comfortably warm; the nights, in summer, are delightfully cool,—blankets, as a matter of fact, being essential at night throughout the summer season. That it is possible to work outdoors in shirtsleeves from January to December and that there is no month of the year when fruit does not ripen or flowers bloom is adequate proof of the equability of the climate.

The thermometer fluctuates between 52° in January and 75° in July, a variation of 23°. The average annual temperature is 64°, with a mean variation of 10° to 12° above or below, in summer or winter. During the fall and winter the average temperature is 52°-54°; in spring and summer, 74°-75°; in some years, however, it is as low as 60°-70°.

The following is a compilation of observations made in Los Angeles, San Gabriel, and Anaheim:

TEMPERATURE IN LOS ANGELES IN 1875, AS PUBLISHED IN THE HERALD

Month	*High*	*Low*	*Medium*
January	72°	30°	49½°
February	78°	35°	54°
March	80°	34°	55¼°
April	86°	31°	62½°
May	103°	40°	66½°
June	95°	46°	68½°
July	92°	50°	73½°
August	103°	50°	74°
September	93°	44°	70½°
October	102°	48½°	67°
November	81½°	42°	59½°
December	84°	38°	56°

TEMPERATURE IN LOS ANGELES IN THE YEAR 1871 COMPILED BY MR. BRODERICK

Month	*At Sunrise*	*9 a.m.*	*3 p.m.*	*9 p.m.*
January	40°	55°	64°	50°
February	41°	56°	64°	48°
March	40°	60°	69°	54°
April	53°	66°	73°	57°
May	56°	65°	71°	60°
June	61°	70°	77°	64°
July	66°	74°	80°	67°
August	65°	75°	81°	69°
September	61°	75°	85°	67°
October	59°	74°	79°	62°
November	49°	67°	69°	57°
December	47°	57°	62°	51°

THE FOLLOWING TABLE OF TEMPERATURES WAS COMPILED BY MR. LOUIS LEWIN IN LOS ANGELES FROM AUGUST, 1875, TO JULY, 1876, AND IS HEREIN REPRODUCED WITH HIS PERMISSION

DAY	1	2	3	4	5	6	7	8	9	10	11	12	13	14
August, 1875														
7 *A.M.*	Sunday	74	71	70	72	75	73	Sunday	69	70	67	71	70	68
10 *A.M.*		86	88	87	88	87	84		78	79	74	76	72	74
3 *P.M.*		84	82	81	82	82	80		86	85	80	80	80	81
6 *P.M.*		81	80	82	80	81	79		72	73	76	74	74	75
September, 1875														
7 *A.M.*	64	65	66	67	Sunday	64	68	69	67	62	61	Sunday	66	65
10 *A.M.*	72	77	75	74		72	68	71	73	72	71		74	67
3 *P.M.*	78	77	76	75		75	73	74	78	77	78		77	79
6 *P.M.*	72	70	70	71		69	70	70	71	70	71		71	75
October, 1875														
7 *A.M.*	63	68	Sunday	58	63	70	73	73	72	Sunday	73	74	70	68
10 *A.M.*	70	73		68	77	84	80	81	80		81	78	76	77
3 *P.M.*	79	78		75	91	96	82	86	87		84	80	78	84
6 *P.M.*	70	70		71	74	80	78	79	80		75	72	70	72
November, 1875														
7 *A.M.*	58	62	57	59	60	56	Sunday	57	59	60	58	61	59	Sunday
10 *A.M.*	69	67	66	66	67	64		65	66	67	69	64	63	
3 *P.M.*	71	68	69	70	72	71		72	71	76	75	75	66	
6 *P.M.*	62	60	61	60	60	60		59	68	66	64	63	62	

15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31

August, 1875

	67	69	68	68	67	68		70	67	66	67	67	69		66	63
Sunday	73	72	75	75	75	77	Sunday	80	79	78	77	80	79	Sunday	77	75
	81	79	82	83	82	83		84	86	83	81	82	84		85	78
	76	73	75	74	75	76		80	76	73	68	72	73		74	70

September, 1875

74	72	73	74		64	68	66	64	64	62		68	64	64	66	
76	80	80	80	Sunday	70	73	70	70	69	69	Sunday	70	73	70	71	
87	79	75	79		73	77	73	75	74	74		75	76	73	75	
80	75	71	71		69	70	67	68	67	66		68	70	69	72	

October, 1875

68	71		68	62	60	60	62	61		63	65	61	65	58	60		
76	78	Sunday	75	74	74	71	70	68	Sunday	70	72	71	73	70	69	Sunday	
82	92		82	80	77	80	75	74		82	78	77	76	72	73		
70	84		71	71	67	68	68	69		74	70	67	70	66	69		

November, 1875

60	59	58	60	63	64		60	55	58	54	54	54		52	53	
68	70	69	68	69	66	Sunday	63	60	61	62	60	61	Sunday	56	57	
72	71	70	71	68	67		64	63	63	64	65	63		60	59	
62	60	63	63	63	60		58	58	60	61	61	58		57	55	

DAY	1	2	3	4	5	6	7	8	9	10	11	12	13	14
						December, 1875								
7 *A.M.*	57	54	54	55		66	55	56	54	57	58		50	48
10 *A.M.*	54	56	58	59	Sunday	61	61	63	64	65	66	Sunday	64	62
3 *P.M.*	57	59	65	64		63	62	64	65	66	68		65	63
6 *P.M.*	60	60	61	58		60	60	61	61	62	62		56	53
						January, 1876								
7 *A.M.*	44		55	54	52	50	48	50		52	53	52	48	46
10 *A.M.*	59	Sunday	60	58	56	55	54	53	Sunday	55	55	56	53	54
3 *P.M.*	51		61	60	61	60	55	56		59	60	56	57	60
6 *P.M.*	47		56	54	56	57	52	57		54	56	54	54	54
						February, 1876								
7 *A.M.*	49	50	48	45	45		46	50	54	48	45	46		49
10 *A.M.*	57	56	51	56	54	Sunday	55	54	56	54	54	53	Sunday	70
3 *P.M.*	59	59	61	60	58		59	58	59	62	60	59		73
6 *P.M.*	46	57	62	52	50		54	53	52	54	53	56		67
						March, 1876								
7 *A.M.*	62	49	52	52		52	52	54	46	43	44		52	55
10 *A.M.*	57	56	61	54	Sunday	57	56	57	52	47	49	Sunday	56	57
3 *P.M.*	62	61	60	66		62	60	56	50	54	60		60	60
6 *P.M.*	57	55	57	53		54	54	53	48	48	50		58	59

15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31

December, 1875

48	50	44	45		45	46	47	50	51	50		54	54	57	52	44
61	62	60	60	Sunday	60	59	59	60	61	60	Sunday	66	63	60	60	60
64	64	61	62		61	61	62	65	63	61		68	65	55	61	59
54	55	52	53		52	57	58	59	57	58		60	58	48	52	49

January, 1876

45		44	46	45	46	44	42		44	43	46	45	46	45		45
54	Sunday	53	52	52	57	47	44	Sunday	47	48	49	50	54	53	Sunday	55
59		57	57	56	54	48	50		50	49	51	54	57	56		58
54		54	53	54	48	46	49		50	50	50	52	52	53		54

February, 1876

51	52	55	54	59		57	56	57	62	62	42		54	44		
73	69	67	68	67	Sunday	66	64	66	68	62	51	Sunday	55	54		
77	75	70	70	71		69	67	78	65	62	56		57	60		
69	68	61	59	60		60	66	76	62	56	50		52	52		

March, 1876

53	58	59	56		58	59	58	60	61	60		60	62	63	50	53
59	60	62	61	Sunday	69	65	60	64	65	65	Sunday	70	69	67	55	58
65	64	69	67		74	69	66	71	70	70		76	76	72	60	55
61	60	64	64		66	60	62	62	60	63		65	70	62	56	60

DAY	1	2	3	4	5	6	7	8	9	10	11	12	13	14
						April, 1876								
7 A.M.	53	Sunday	58	58	59	58	54	52	Sunday	54	54	50	54	55
10 A.M.	59		60	60	64	62	60	57		59	59	57	59	65
3 P.M.	64		62	70	70	64	64	65		62	61	68	72	75
6 P.M.	62		60	64	62	57	56	60		55	64	62	64	64
						May, 1876								
7 A.M.	68	64	66	64	64	65	Sunday	65	60	62	63	62	64	Sunday
10 A.M.	76	72	70	68	70	68		76	68	65	70	66	68	
3 P.M.	82	81	78	78	75	80		85	82	80	78	72	72	
6 P.M.	72	76	67	66	67	71		71	64	66	70	60	64	
						June, 1876								
7 A.M.	65	64	64	Sunday	63	64	65	64	64	65	Sunday	68	67	66
10 A.M.	72	70	74		71	70	71	72	70	73		79	80	76
3 P.M.	78	76	78		76	78	77	80	81	82		88	89	87
6 P.M.	71	70	66		66	68	72	73	74	78		72	78	76
						July, 1876								
7 A.M.	71	Sunday	70	67	67	68	67	68	Sunday	70	71	72	70	69
10 A.M.	77		75	77	76	76	72	77		78	80	80	74	74
3 P.M.	85		88	84	84	82	80	84		90	90	89	83	84
6 P.M.	79		81	82	76	74	76	78		82	83	82	76	77

15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31

April, 1876

62		64	60	60	59	64	60		58	61	64	64	74	72		
75	Sunday	70	64	65	62	69	64	Sunday	62	66	72	81	80	81	Sunday	
81		72	70	72	70	62	69		74	74	80	91	90	88		
74		66	65	66	64	58	65		64	68	72	84	82	78		

May, 1876

64	64	62	61	62	62		64	64	63	64	65	68		64	64	65
70	68	68	69	70	65	Sunday	72	70	70	71	72	79	Sunday	70	72	74
78	70	75	80	81	73		80	78	76	78	84	86		79	78	77
68	68	68	72	71	65		70	68	70	71	76	76		72	70	70

June, 1876

67	68	66		64	66	70	70	68	69		70	70	70	68	70	
78	79	77	Sunday	72	74	75	75	74	75	Sunday	77	76	77	76	80	Sunday
86	88	88		83	87	88	86	82	85		89	83	85	84	88	
78	78	80		76	74	82	77	75	77		80	75	78	78	82	

July, 1876

68		69	68	68	67	72	73		74	74	72	72	69	70		70	
74	Sunday	76	75	74	75	80	82	Sunday	86	85	82	85	79	80	Sunday	80	
82		86	82	82	83	86	87		88	89	86	88	86	89		90	
77		79	76	77	77	80	80		81	80	80	80	79	80		82	

THERMOMETRICAL OBSERVATIONS MADE IN ANAHEIM OVER A PERIOD OF EIGHTEEN MONTHS, BEGINNING JANUARY 1, 1874.

COMPILED BY EDWIN S. SAXTON

Year and Month	*Low*	*7 a.m.*	*High*	*7 p.m.*
1874				
January	43	44	60	52
February	39	41	59	58
March	38	41	59½	49½
April	40	45	70	56
May	47½	54¾	74	63
June	48½	58½	80	66
July	57½	66	83½	68
August	54¼	63½	82½	65¼
September	50	58	77	61
October	49¼	55	73	58
November	42½	44¼	65¾	50½
December	36¼	39¾	63¾	48
1875				
January	39	40¾	59¼	49
February	40	42½	62½	51¾
March	36½	42	64½	52¼
April	41½	49	70	55
May	50	56⅛	74¾	64¼
June	51½	58½	76¾	64¼

These give the lowest temperature in the preceding night, the highest in the day, as well as that at 7 a.m. and 7 p.m. These also indicate the exceptional frosts of the year 1875—the lowest temperatures in twenty years.

Three lowest days			*Three highest days*			*Average*	*Inclement Days*
31	37	35	69	68	69	50	4
32	32	33	65	68	66	47	7
30	32	31	66	67	70	47	6
35	33	34	78	78	80	52¾	3
38	35	40	89	81	83	59¼	2
41	43	41	85	90	90	63¼	
53	52	51	90	89	90	68¾	
44	44	45	94	93	95	67	1
43	43	43	89	88	94	61½	
38	41	37	90	85	84	59	4
35	36	33	78	79	82	50¾	3
28	28	29	80	81	78	47	1
32	32	31	69	68	64	47	6
35	34	32	72	76	72	49	1
32	28	31	70	76	72	49	2
22	24	28	81	84	76	54	
41	40	38	97	93	80	61¼	
49	43	44	83	85	86	62¾	

TEMPERATURE IN SAN GABRIEL IN THE YEAR 1869

COMPILED BY B. C. TRUMAN

Month	*7 a.m.*	*3 p.m.*	*9 p.m.*
January	40°	59°	46°
February	46°	61°	53°
March	47°	64°	52°
April	51°	68°	55°
May	60°	72°	61°
June	64°	74°	67°
July	68°	80°	68°
August	67°	77°	67°
September	70°	75°	67°
October	59°	71°	61°
November	43°	67°	47°
December	47°	59°	46°

METEOROLOGICAL REPORT FROM ANAHEIM FOR 13 MONTHS (FROM JULY 1, 1872, TO JULY 31, 1873).

FURNISHED BY FRANCIS S. MILES

From observations made at 8 a.m., 1 p.m., and 6 p.m.

JULY, 1872. HYGROMETER: Average variation between wet and dry bulb 7.1° to 6°. THERMOMETER: Average temperature 72¾°; high 83°, low 66°. For 5 days the temperature was above 80° at 1 p.m. Bright sunshine 30 days; cloudy and rainy, 1 day.

AUGUST, 1872. HYGROMETER: Average variation between wet and dry bulb, 8°. THERMOMETER: 72¾°, high 94°, low 68°. For 9 days the temperature was over 80° at 1 p.m and 2 days over 83°. Bright sunshine 20 days; sunshine and clouds, 10 days; 1 day cloudy.

SEPTEMBER, 1872. HYGROMETER: Average variation between wet and dry bulb 8.1° to 10°. THERMOMETER: Average temperature 74°, high 90°, low 62°. For 5 days the thermometer was over 80°, and 1 day over 83° at 1 p.m. Bright sunshine for 28 days; sunshine and clouds, 1 day; cloudy, 1 day.

OCTOBER, 1872. HYGROMETER: Average variation between wet and dry bulb 8⅓°. THERMOMETER: Average temperature 69¼°, high 96°, low 58°. For 4 days the temperature was over 80° at 1 p.m., and on 1 day over 83°. Bright sunshine 27 days; sunshine and clouds, 1 day.

NOVEMBER, 1872. HYGROMETER: Average variation between wet and dry bulb 11⅞°. THERMOMETER: Average temperature 68°, high 85°, low 55°. For 6 days the temperature was below 60° at 8 a.m. Bright sunshine 26 days; sunshine and clouds 3 days; stormy 1 day.

DECEMBER, 1872. HYGROMETER: Average variation between wet and dry bulb 6.1° to 6°. THERMOMETER: Average daily temperature 62°, high 77°, low 50°. Bright sunshine 17 days; sunshine and

clouds 6 days; stormy, 8 days. Rainy 2 days and 4 nights. For 5 days the temperature was above 55° at 8 p.m. Strong wind, 1 day.

January, 1873. Hygrometer: Average variation between wet and dry bulb 7⅞°. Thermometer: Average daily temperature 63¾°, high 80°, low 50°; for 6 days the temperature was below 55° at 8 a.m. Bright sunshine, 19 days; sunny and cloudy, 8 days; 4 days, entirely cloudy; rainy, 2 days; heavy winds, 2 days.

February, 1873. Hygrometer: Average variation between wet and dry bulb 4½°. Thermometer: Average temperature 57⅓°, high 75°, low 44°. For 15 days the temperature was below 55° at 8 a.m. Bright sunshine for 7 days; sunny and cloudy 13 days; cloudy the entire day for 8 days; stormy, 9 days.

March, 1873. Hygrometer: Average variation between wet and dry bulb 6⅜°. Thermometer: Average temperature 64⅛°, high 81°, low 54°. For 2 days the temperature was under 55° at 8 a.m. Bright sunshine for 12 days; sunshine and clouds 13 days; stormy and rainy for 6 consecutive days. Strong winds 2 days.

April, 1873. Hygrometer: Average variation between wet and dry bulb 9⅔°. Thermometer: Average temperature 64¾°, high 87°, low 48°. For 4 days the temperature was below 55° at 8 a.m. and for 4 days over 80° at 1 p.m. Bright sunshine for 21 days; sunshine and clouds 8 days; entirely cloudy 1 day.

May, 1873. Hygrometer: Average daily variation between wet and dry bulb 7¼°. Thermometer: Average daily temperature 65½°, high 86°, low 57°; on 2 days the temperature was over 80° at 1 p.m. Bright sunshine for 16 days; sunshine and clouds 9 days; 6 consecutive overcast days.

June, 1873. Hygrometer: Average daily variation between wet and dry bulb 7⅙°. Thermometer: Average temperature 70°, high 91°, low 60°; for 5 days the temperature exceeded 80° at 1 p.m. Bright sunshine for 30 days.

July, 1873. Hygrometer: Average daily variation between wet and dry bulb 8¼°. Thermometer: Average temperature 73°,

high 100°, low 62°; for 8 days the temperature remained above 80°, and for 3 days over 85°; sunshine for 28 days; sunshine and clouds 2 days; cloudy 1 day.

As this compilation clearly indicates there are more clear days out here than in any other State of the Union. The average estimate is 240 cloudless days a year. Usually, toward the end of April and early in May, light fogs occur over a period of two or three weeks which last until noon. At other times of the year even if the fog occurs occasionally, it is soon dissipated by the sun.

The air which is extremely pure, fresh, and invigorating, is of extraordinary transparency. Distances are very deceptive; the tenderfoot is often surprised at the remoteness of objects that appear fairly close at hand. Mirages are frequently visible. Since the air contains but little electricity, thunderstorms are, as a rule, unknown, except once in a great while during the winter season. Hail is also rarely seen—it never falls during the summer season—and only appears infrequently between the months of February and May. The Northern Lights, moreover, are never visible.

Southern California has no real winter weather, merely a rainy season of about four months duration. The rains commence in November; these, however, are usually light showers and barely suffice to settle the dust for a few days. Heavy rains do not fall until December—generally toward the end of the month. But at this time they transform the land as if by magic. Two or three weeks after the first heavy rains fall, nature blooms with fresh activity, the parched hills wear new cloaks of green, the brown fields flaunt spring grasses and the entire country, by December, is as spring-like as the Eastern States by April and May. In the gardens hyacinths, tuberoses, fuchsias, heliotrope, verbena, and roses appear in full bloom. Ivy and honeysuckle put out young shoots; bees hover over the flowers, whose perfume is carried for some distance by the balmy breezes; butterflies flutter everywhere.

This is the time when the rich earth is worked by plow and har-

row; winter, even though the temperature is somewhat lower than in summer, being the time for soil cultivation. The landscape, at this particular season, is a glorious sight, and the inhabitants justly praise the greenness of their winters, which are a striking contrast to those of other countries. While termed the "rainy season" to differentiate it from the dryness of summer, it must not be imagined that rains fall incessantly. Often, for days at a stretch, no rains appear. Many of the rains fall at night—and as soon as the rains stop the sun usually begins shining. Most of the rains fall in December. This is the coldest month, the thermometer falling at times as low as 33° or 34°. From January on through April the weather is delightful. Twelve to 14 inches is usually the annual rainfall. Below is a table showing the amount of rainfall over a period of 11 years —indicating an annual average of 12 inches.

1860-1861	7	1866-1867	17
1861-1862	13	1867-1868	11
1862-1863	4	1868-1869	10
1863-1864	4	1869-1870	4
1864-1865	10	1870-1871	7
1865-1866	15	1871-1872	13

Ice and snow almost never fall on the plains or, when they do, at once melt away. The mountains, on the other hand, are invariably covered with snow in winter. Los Angeles escapes the cold winds that blow in the northern part of the state, since the prevailing northerly and northeasterly winds are barred by the mountains and tempered by passing over the hot inland valleys and deserts in the upper and eastern parts of the county. Fires, while not essential, are often pleasant, especially in the evenings.

By April the rains are usually over, though showers fall now and again as late as May; these, however, do not mitigate the full force of the sun. The dry season lasts from this time on until December. With the ripening of the harvests, this is the richest season of the year. From June until well on into October, the cool dry trade

winds from off the northwest temper and render delightfully invigorating the atmosphere. These spring up about 11 o'clock in the morning and blow with unfailing regularity throughout the day until sundown. So refreshing are these breezes that there is rarely a day when work out in the open becomes onerous. Throughout July and August these breezes reach their maximum; in September—the warmest month—they slacken considerably. Throughout the summer season, however, an extremely hot day is the exception. It is rare for the thermometer to touch 90° or even 80° except on a few occasions. Owing to the dryness of the atmosphere, moreover, the warmth is not oppressive. It is really remarkable how dry the air is. A cut of meat hung up in the open dries without spoiling; carcasses of cattle dry up; iron can be left outdoors for months without rusting. But since this lack of rain and moisture is natural, neither animal nor vegetable life suffers from it.

As the sea-breezes blow in by day, so, too, in the summer season, such cool night-breezes come down from the lofty mountains, that it is impossible to sleep, as already observed, without blankets. One who has experienced the exhausting heat of summer nights in the Eastern States will appreciate what this means. Out here, moreover, the mosquito is seen so seldom that it never proves troublesome.

What causes this exceptional summer climate is the fact that the cool air off the ocean (averaging some 60°) blows in across the mountain ranges paralleling the coast and freshens the warm air rising from the dry and arid valleys in the interior. The dense fog borne in throughout the summer season by the unbroken force of the northwesterly winds that extend above San Francisco as far north as Point Conception and which differentiate the northern from the southern climate do not reach the southern coast. The mists or feathery clouds down here absorb enough warmth to rise. As a result, when the full force of the wind strikes them, they are driven off across the continent, and are carried so high that no

mists form, while at the same time they are low enough to absorb any superfluous dry heat and usually they are carried up and off as far as the Mississippi Valley before precipitating moisture. In the winter season, on the other hand, the temperature of the ocean and the continent is more nearly equable, few sea breezes prevailing. To atone for this situation, however, the north winds blow down into the warm valleys of the interior with such force that when they meet an air current coming in from the east they cause the clouds that have formed along the coast to precipitate a heavy rainfall. This explains the winter rainy season. The warmth from the Japanese current also contributes notably to the mildness of the climate for, after passing Alaska and the Aleutian Islands, it travels on down the Californian coast, keeping the temperature of the ocean at 52°-54°, even in winter.

The country is extraordinarily healthful, due to the equability of its climate, to its dry, invigorating air, to the breezes blowing in summer and finally, to its excellent water. The ocean on the one hand and the great desert on the other, the lack of harmful marshlands and swamps, all exclude the possibility of malarial fevers. In summer the breezes bring in pure air off the ocean while the dryness of the atmosphere prevents the putrefaction of refuse. In winter, the rains, especially in the neighborhood of Los Angeles, are quickly absorbed by the porous soil; there is no insidious combination of cold and dampness to cause lung infections. Neither is the summer heat and moisture of such a character as to bring on malarial fevers. Although malaria and lung troubles are responsible for a certain number of deaths out here, yet the rate of mortality is far lower than in other countries. Scarlet fever and diphtheria, which carry off so many in the eastern states, are unknown; cases of sunstroke—because of the dryness of the atmosphere—are also unknown. Epidemics, moreover, are never known to occur. On an average, there are 13 deaths to 1,000 inhabitants. The pure, stimulating air, furthermore, is highly beneficial to invalids who gain

strength rapidly, being able to sleep in comfort because of the coolness of the nights. In some countries, the cold weather prevents proper ventilation; in others, heat precludes exercise. Out here, both are available. An active life is not only pleasant but extremely feasible; in this climate it is not exhausting. Local conditions are especially beneficial for pulmonary ailments, asthma, liver trouble, nervous disorders, and old age. The sunny skies, the delightful winter climate, and the beautiful walks all contribute to make Los Angeles a veritable sanitarium. In this respect the country in and around San Gabriel is even superior to that of Los Angeles. Without a doubt, however, semi-tropical California will become at some future date a noted health resort for the entire Union.

The invalid can find health in Los Angeles; the rich, a life of ease and pleasure in an earthly paradise, devoid of winter cold and summer heat.

Earthquakes occur fairly frequently, usually in August; this is probably why many rich families prefer to live in wooden houses. Of recent earthquakes, three were especially severe. On July 10, 1855, the walls of 26 houses in Los Angeles were cracked by an earthquake. None, however, was destroyed, although several citizens were killed. Another was felt on January 9, 1857; this, which was the most severe, extended from Fort Yuma to Sacramento—a distance of several hundred miles. At this time the Los Angeles river rose from its bed, while in the San Gabriel Valley a crack 7 miles long was opened. At 12:45, on October 8, 1865, occurred another strong shock that affected the coastal valleys from San Luis Obispo to Humboldt Bay.

CHAPTER

3

FLORA AND FAUNA

Los Angeles County, generally speaking, is not rich in native trees. With the exception of the live-oak, the California Roble *(Quercus agrifolia),* which forms groves or little woods on the hills and in the valleys, it is often necessary to travel a considerable distance before encountering plane-trees, the aliso and sycamore *(Platanus racemosa)* which rise so gracefully here and there in the meadows. Often these are young, vigorous, and full of life; again they will be found lying on the ground, dry and rotten from old-age, and blocking the road. Poplars *(Alamo),* cottonwoods *(Populus argentea),* the California horse-chestnut *(Aesculus Californica)* —whose nuts are used by the Indians for food—and a species of willow *(Salix rastrata)* are also fairly common. With the exception of these, it is necessary to go far up into the mountains to find large trees; there, however, many trees of great size, particularly conifers, grow. Especially worthy of note is the redwood *(Sequoia sempervirens)* which is frequently found in the coast ranges. It belongs to the species known as the Big Trees of California, which are now ranked as one of the wonders of the world. These are the second in size, and the first in commercial importance, of all the Big Trees of California. Of almost equal splendor is the sugar-pine *(Pinus lambertiana)* with its giant needles, in length as long as a shoe. The yellow pine *(Pinus ponderosa),* the Arbor Vitae, the so-called cedar *(Thuya gigantea)* and the white cedar *(Libocedrus decurrens)* are also fairly common.

Various kinds of evergreen shrubs are also found growing rankly on the hillsides and in shadowy valleys such as the laurel *(Oreo-*

daphne Californica), the madroña *(Arbutus menziesii),* the manzanita *(Arctostaphylos glauca),* which lends itself so readily to artistic effects, and the long-leaved and exquisitely green *Celastrus obtusata. Eriogonum fasciculatum,* and *Eremocarpus setigerus,* and the *Euphorbiacee,* are all characteristic of California.[1] Since this is not an opportune place for discussing the many plants of California, only two of the most remarkable varieties will be mentioned. The first of these is the poison-ivy, *Yedra (Rhus toxicodendron).* This plant is somewhat dangerous since contact with the leaf and stalk causes a most irritating eruption of the skin, accompanied by severe inflammation. Down in the vicinity of Los Angeles, particularly in cañons formerly cut by rivers, this plant is often found clinging closely to the trees. The fruit, when cooked, is not harmful. Entirely harmless, too, is the *Chlorogalum pomeridianus,* whose onion-like bulb when rubbed in water forms a kind of lather that is used to remove dirt.[2] Among the Indians and Californians it was frequently used for this purpose. The *Agave Americana* is indigenous as are several varieties of *Cereus* and *Opuntia* that resemble them.[3]

The fields in and about Los Angeles are particularly rich in flowers. Thus in March they appear to be cloaked in red; in April, in blue; while in May they resemble masses of pure gold. The latter may be ascribed to the orange-colored poppy *(Eschcholtzia),* which is aptly called *Copa de Oro,*—cup of gold.

The ocean off this coast is also peculiarly rich in vegetation, seaweed *(Macrocystis pyrifera),* often 200 yards long, being common.

Among important ocean fauna found in California should be mentioned the *Teredo navalis,* the destructive *Limnoria,* and the abalone *(Haliotis).*[4] The latter, which is 5 or 6 inches in length, clings in masses to the rocks and is removed by spades at the exact instant when its tenacious grip is relaxed. It is then dried and sold to the Chinese, who consider this a great delicacy.

The local waters are also fairly rich in fishes. Of major impor-

tance among those found are the Jewfish *(Stereolepis gigas),* the Sunfish *(Orthagoriscus analis),* the gay-colored *Labrus pulcher,* and the anchovy *(Engraulis mordax* and *manus).* A flying-fish *(Exocetus Californicus)* is also frequently seen in Californian waters. In the rivers are also many other kinds of fishes; the salmon, Quinnat salmon *(Salmo quinnat),* abundant between November and June; two kinds of trout, the brook trout *(Salar iridea);* and the salmon trout *(Ptychocheilus grandis).*

On the continent, tarantulas are numerous. These creatures live in holes filled with an ingenious kind of lid or cover. Oddly enough, they are often chased and killed by wasps, who then lay eggs on their bodies. Among other deadly insects are such creatures as the scorpion, and, most important of all, the rattlesnake. These, however, have been largely exterminated in the settled regions in and about Los Angeles.

Among birds, one that is peculiarly striking and frequently seen is the scavenger turkey vulture, the so-called Californian *Auras (Cathartes aura),* a shining black creature with a head of brilliant red. These are highly esteemed because they consume old refuse. Less common is the road-runner, *paisano (Geococcyx Californicus),* who is supposed to kill rattlers. Especially common is the small burrowing owl *(Athene cunicularia),* which has one salient peculiarity: it lives in the same hole as the *Spermophilus,* and is often seen sitting day after day on a tiny hummock of earth thrown up at the mouth of the hole.[5] The blue-black glistening *Icterus* is also indigenous to Southern California; its favorite haunts are brooks where, close to Los Angeles, it may be seen flying back and forth much like the starlings in our own country.[6] Varieties of poultry include the Californian quail *(Lophortyx Californicus)* and *Oreortyx pictus,* which are frequently found in the forests.[7]

In the animal kingdom the ground squirrels *(Spermophilus Beecheyi* and *Douglasii)* are especially worthy of note, primarily because they are so numerous and lend to the landscape so ani-

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mated an appearance. These little creatures are wonderfully pretty and energetic; time and again I have watched their antics out in the sunny fields with the keenest pleasure. As soon as they think no one is watching they creep out quietly and mysteriously from their burrows, sit up on their haunches, look carefully around, and run and jump together with such vivacity that their shrill chatter can be heard for a considerable distance. Again they eat greedily, while sitting quietly on little heaps of earth. Nearby, like well-mannered but interested veterans, are a few silent owls, like so many dumb witnesses. If a carriage happens to drive along or if the slightest noise is heard every squirrel, with tail held high, rushes into his hole, leaving the fields empty and silent where, only a moment before, they had been so full of animation. Later, encouraged by the ensuing silence, they again poke their tiny heads with their sparkling black eyes out from their subterranean houses. I took several of these creatures back with me to Europe feeding them solely on oats and found constant amusement watching their flirtatious ways. When annoyed they emitted a peculiar grunting sound quite unlike their usual high-pitched cries expressing joy, especially when they saw food. In grain-fields and in vegetable gardens they are a constant pest, causing considerable damage. Almost as injurious is another rodent, the gopher *(Thomomys bulbiforus),* who lives, in the main, underground, gnawing the roots of vegetables and fruit-trees. Another species is the Colorado gopher *(Thomomys fulvus),* which, however, is not so prevalent.

A jumping-rat *(Don Jerboa),* and two kinds of hare, *Lepus trowbridgii* and *Audubonii,* as well as the rabbit *(Lepus artemisia),* are indigenous to these regions.

The principal cud-chewing animals are the antelope *(Antilocapra Americana),* which is, unfortunately, rapidly being exterminated, the mountain sheep *(Ovis Montana)* and high up in the Sierras, two kinds of elk, the American Elk *(Cervus Canadensis),* and the Black-tailed Deer *(Cervus Columbianus).*

Among beaſts of prey the moſt important is the puma *(Felis concolor)*, a fine-appearing but cowardly animal who roams only after dark. Nomadic in habit, he moves conſtantly from place to place, except when hiding in the underbrush. He prizes, above all else, young calves. The lynx *(Lynx rufus)*, is also frequently encountered up in the mountains, as well as the mountain cat *(Bassaris aſtuta)*, an intelligent, pretty little creature which is often domeſticated by the mountaineers.

Coyotes *(Canis latrans)*, animals that howl all night long much like a chorus of jackals, are very numerous and prey omnivorously on poultry, lambs, and young pigs. The latter they are especially skilful in catching, ſtealing up and surprising them while the sow, wild with rage, pursues the culprit. Travelling, as a rule, in bands, they often attack cows, catching them by their throats. They are born thieves and it is not unusual to have them ſteal even from a guarded camp. When ſtarving they will even eat the ropes, containing tallow, which are used to tie horses; however, they will not touch those woven from hair. For this reason the early Californians used the latter kind of rope exclusively for this purpose.

A small weasel with a white neck *(Muſtela)* is often seen in and around Los Angeles. In the mountains live two species of bear, the cinnamon-brown, and the grizzly *(Ursus horribilis)*. The latter, who is in the habit of roving at night, goes out after swine as well as many kinds of roots, fruits, and vegetables. Owing to the zealousness of hunters who wage conſtant warfare on this troublesome neighbor, he is daily growing rarer. Sea-lions *(Otaria ſtelleri)*, on the contrary, thrive near the shore, being protected by a law that prohibits shooting them within twenty miles of the coaſt. Groups of fifty or more are often seen swimming, with the swiftness of dolphins, around a ship or travelling by the hundreds up and down the coaſt, their deep bellowing mingling with the roaring of the waves. Sea-otter *(Enhydra marina)* as well are common on the coaſt; they are particularly fond of abalone *(Halio-*

tis). Nor is it unusual, when sitting on the beach, to see far off in the distance, a thin column of water being spouted by a whale, especially in the vicinity of Monterey Bay.

CHAPTER

4

POPULATION

The county of Los Angeles has a population of some 30,000 inhabitants. This population is decidedly mixed, for people have streamed into this paradise from all over the world. Of this number about a quarter are Californians—a term used to designate those of Spanish descent as well as those who have intermarried with Indians. All Anglo-Saxons and, in fact, all settlers from other States in the Union are called, on the other hand, Americans.

The development of this country dates back only to 1828-9 and 1832.[1] From 1841 on, a number of Americans and foreigners came out as settlers. It was these settlers who, as has been already observed, not only formed the backbone of the population, but also injected fresh energy into the county. Intelligent, ambitious, and industrious as these settlers were, they have since taken an important part in the life of the community and become warm supporters of the State where they have attained wealth and prosperity. For this, indeed, they are fully compensated. Furthermore, the idea of equality is probably more highly developed out here and, in fact, all over California, than in any other State in the Union, a situation that had its origin no doubt in the rapidly changing conditions in this county. Any stranger, provided he shows good breeding, is looked upon with favor. This land, moreover, is famous for its hospitality. Among the local Americans chivalry toward women is especially notable.

As a general thing, the inhabitants of California seem stronger and in better health than those in other States, while travellers who have come out from the East are quite surprised by the healthful

coloring of the population as a whole and at the rosy complexions of the children. What causes this is primarily the favorable climate and the opportunities for being constantly out in the open.

The name "Pikes," a term applied to certain families who have come out from the southeastern states, merits particular mention. The name comes from Pike County in Missouri, the home of many of the first Californian settlers. Most of them are engaged in raising cattle, which they understand thoroughly. Though hospitable and loyal even toward their enemies, they are, however, not progressive like the other Americans. The inhabitants out here are fond of cracking jokes at their expense, whether true or fictitious. The negro population is about a hundred; several in Los Angeles are very rich, although they are not much in evidence.

The language most commonly used, at least by the Americans, is English; however, it is mixed with many Californianisms, mostly words of Spanish origin, which are in general usage. Many odd expressions that have originated in mining-camps are also heard.

Every kind of religious belief is represented, but these will be discussed later when the churches of Los Angeles are enumerated. The majority of the population is, however, Catholic. In 1769 the Catholic mission of San Gabriel was established; ten years later San Juan Capistrano was founded; in 1797 that of San Fernando and, considerably later, Los Angeles.[2] In addition to these churches which are still in existence, there are three more Catholic churches in the county: at San José, Wilmington, and Anaheim. There are many Jews in this county, but only among the American colony. All sects show the greatest tolerance toward one another.

Throughout California the schools receive great attention; in this respect California ranks well up with the other states in the Union. While many of the schools were established some time ago, yet they keep well abreast of the times. The following data will indicate how rapidly the schools are growing. On July 1, 1873, Los Angeles County had 6,101 school children in 39 districts (in 1866,

only 12 existed), 44 school-houses and 55 teachers. Only three districts outside of Los Angeles have either intermediate or elementary schools. The taxes levied by the state and county to cover teachers salaries and miscellaneous expenses amount to less than $50,000. On July 1, 1875, there were 7,787 pupils, an increase in two years of 1,686 children; 48 districts, an increase of 9; and 72 teachers in Latin, intermediate, and primary schools. Three schools have since been added, bringing the total increase up to 28. School-funds now amount to $81,000, an increase of over $30,000. On July 1, 1872, the total valuation placed on school property was $131,000 —an increase of $47,000.

The population, on the whole, is fond of outings, the lack of rain during the summer season affording opportunity for innumerable picnics. One of the most popular summer diversions is sea-bathing, especially down at Santa Monica. Of this, however, more will be said later. Many of the more energetic citizens go over to Santa Catalina, which lies about 30 miles off the coast, for this purpose. In the cities one of the favorite diversions is billiards.

CHAPTER

5

GLIMPSES OF THE PAST AND PRESENT

THE CALIFORNIANS

One day one of the early Californians, an idle and talkative old fellow who knew this *El Dorado* in its halcyon days, during the Spanish and Mexican régime, said to me, "The Spanish colony in Los Angeles is now like a devastated grain field." No one will deny that even if the material prosperity dates from the day when the stars and stripes were unfurled, yet the true poetry of California is inseparably linked with the Spanish element. The patriarchal mode of life—which is now entirely past—that centered around the old missions, was essentially a happy one. Since settlers were comparatively few in this vast country, they lived like kings in their own domains, bound together only by mutual interests. Land having very little value, vast land-grants were made by the government to individuals. If more land was required it was given merely for the asking.[1] For dowries their daughters received the choicest of lands from the public domains. Cattle grazed unmolested in the finest pasturage. What was brought in from the hunt was always divided and whatever one neighbor requested from another was always given. Poverty was a thing unknown, the poor lived at the houses of their rich relatives whose doors were always open. The Indians were trained to act as servants.

Whenever the lord and master of one of these establishments traveled, he was always welcomed at private homes and supplied, free of charge, with board and lodging. Not only was he entertain-

ed, but even a clean shirt was furnished in the morning. Where he was personally known to the family he was presented with one or two hundred dollars; from this he took what was needed. If his horse was tired, a fresh one was supplied for the day's journey. As a general thing the luggage carried by a *ranchero* consisted only of a blanket, in which he rolled himself to rest, a horse-hair rope for picketing his horse, and a lasso. In a small bag fastened to his saddle was some *pinole*—corn ground between stones and roasted —which, mixed with sugar, made a good breakfast. Whenever his horse showed signs of giving out, he would lasso another in the nearest field, repeating this until he reached his destination.

The early Californians supported themselves by raising cattle; for recreation they went hunting. On Sundays, both gentlemen and ladies formed in an impressive cavalcade and went to church. The even tenor of their daily lives, however, was frequently interrupted by festivals. These usually centered about the old missions and were semi-religious and semi-secular in character. To attend these many came from a distance of 50 miles or more, and remained one or two weeks. The mission fathers, who had vast cattle lands, acted as hosts to the entire countryside. In this way a firm bond was formed between priest and parishioners, which materially strengthened the community spirit. The simple needs of these people were supplied from their own ranches; meat, milk, and cheese were furnished by the cattle, while on their own vast acres the grain, which was ground between stones by the Indian women, was raised. On the larger ranches, moreover, the Indians who had been taught by the mission fathers were employed at such manual work as tanning the hides of sheep and cattle to be used for garments, blanket weaving, and other labor. To secure such luxuries as tea, coffee, or women's clothing, hides, horns, and melted tallow were often sold to Yankee traders. Much of the richest land, however, lay fallow; few trees were planted, and only a few fields—most were used primarily for pasturage—were placed

under cultivation. Nevertheless, fortune favored them. Though living in the utmost simplicity, they were practically independent, and were their own masters. With the coming of the railroads and the consequent changes how deeply they must miss the pastoral days of California!

Those noble traits that distinguished them in the times past have been retained, even down to the present. Among these was self-restraint and moderation, especially in drinking, generosity, and a Spartan-like way of enduring physical hardship. At the same time, these Californians were good-natured, pleasant, and so kind toward their subordinates that they became warmly attached to their masters. Skillful and tactful in their handling of men, they were also noted for their hospitality, their friendliness, and their dignity.

But as business men they were unsuccessful, for they desired merely to live in peace and comfort. With the influx of Americans into California the value of cattle soared; owners of herds, finding themselves rich overnight, spent lavishly. Much of this wealth went into ostentatious luxuries; saddles studded with gold and silver, golden stirrups and spurs, reins with silver chains, costly lace bedspreads, and elaborate silk dresses for the ladies.[2] Before long the frugal Americans owned the land and today the Californians do not own one-twentieth of what they possessed in 1848.

Since the Spanish settlers who migrated to California in the days of Spanish rule brought few women with them, many married Indians. The majority of the present-day Californians are the descendants of these marriages. Under the former Spanish and Mexican régimes those of pure Spanish blood alone comprised the local aristocracy. Even now they are the most prominent Californians and number in all about fifteen families. Those of mixed blood, on the contrary, are nick-named "greasers." Those who came originally from the Mexican province of Sonora are known as "Sonoranians." The Californians living here prior to the days

of the American occupation had extraordinarily large families and lived to a ripe old age. Many, in fact, were centenarians. This may be caused, on the one hand, by the milder climate; on the other, by the mode of life. Out in the San Gabriel Valley at the present time there is living a woman 135 years old. She has several healthy children—the youngest of these is now eighty—and has assisted at the mission church for over 100 years. She has a wrinkled face, stringy, brittle hair, excellent hearing, and a good-natured smile.[3]

The Californians, all in all,—most of whom are the descendants of Spanish-Indian stock—are a healthful, strong people. They have heavy features, mild, pleasant, expressive, black eyes, and smooth hair. In color they are dark; this increases with age, as does their corpulency.

The Spaniards have not clung to their characteristic costume. However, in outfitting their horses, they follow their old customs. Among these is the use of exquisitely wrought Mexican-style high saddles of fine leather with embossed decoration; a saddle-bag, used for carrying a rolled coat or blanket; reins composed of small balls ending in a chain; a whip made of gut strings for urging on their horses, and buckled spurs bent sharply down, which complete the riding equipment of a gentleman. Characteristic of the feminine costume is the use of a kind of shawl or *mantilla* which is thrown over the left shoulder.

Most Californians live in the country; their chief wealth, even now, is land and cattle. The principal occupation of the lower classes is herding cattle. Their daily routine is rarely varied—they both rise and retire at an early hour. Their food is extremely simple. Beef, especially dried beef (*carne seca*) is the staple food of the *ranchero,* together with tortillas, that is, wheat or corn cakes. The chief beverage is tea or coffee with, occasionally, wine. At the close of the evening a few cigarettes are smoked. In every way they are a very cleanly people.

They have many beautiful folk-songs and dance the *jota,* which is similar to the *aragonesa,* and the *fandango* with the greatest enjoyment. The Castilian tongue is usually heard, with the addition, however, of many colloquialisms. Conspicuous among these is their failure to accent certain syllables. For instance, in place of *país* they say *páis,* meaning land or country. Their children learn very rapidly and retain their own tongue, while those who associate with them soon learn to speak Spanish.

CHAPTER

6

THE INDIANS

In the early days there were many Indians in California. When the first census was taken in 1823, there were 100,826. By 1863 there were only 29,300 and now there are probably less than 20,000. It is greatly to the credit of the mission fathers to have been able to civilize these wild Indians and to have taught them, as well as religion, useful industries. Assimilation with the Spaniards who, instead of inciting the Indians to hostility, intermarried with them, accounts for the mixed blood of the Californians. And while even today in the country it is not uncommon for men to marry Indian women, a white woman practically never marries an Indian man. Californian Indians, as a whole, are not malicious and far less warlike than those tribes who live like beasts in the central and eastern parts of America. Between the years 1825-1840, however, the settlers were the victims of a series of attacks.[1]

These Indians of California have large bodies but small hands and feet. The average height of the men is 5½ feet, of the women 4 feet and 10 inches. Physically they are very sturdy. At one time long-lived, they are now becoming strongly addicted to brandy. The women drink as well as the men. This, together with the prevalence of syphilis, which has been brought in by the Europeans, is what has increased their death rate and materially shortened their span of life.

When used—as they are throughout the county—as laborers they are harmless and industrious, although somewhat slow. To counterbalance this they are very cleanly, a trait they have acquired from the old Spanish-Californians. Their huts are made of

reeds and straw with a framework of long poles. For weapons they use spears and arrows tipped with obsidian or bone. From this same stone or obsidian, knives as large as a man's hand and sharp on one edge are made. Now, however, they have fire-arms and modern tools as well. From wire grass they braid baskets; numbers of these are quite attractive. Many of them raise cattle. They live with the utmost simplicity and consume mainly acorns, clover, grass-seed, horse-chestnuts, roots, and berries. Clover is eaten raw. The acorns are gathered by the women, pounded with a pestle and rubbed between flat stones, mixed with boiling water, and baked into cakes. Both horse-chestnuts and grass seed, after being pounded in a mortar, are usually made into a soup or stew. Fish and wild game are roasted over a coal fire. In so doing they observe the customs of the Spanish-Californians.

The Indians in the vicinity of Los Angeles are known as the *Cahinas;* those in San Timoteo (about 200 in all) are called the *San Juaneños,* and are strongly addicted to drink. In the La Jolla Reserve are the *San Luiseños;* in Kasteki, the *Ferdinandiños.*[2] These come into Los Angeles toward the end of August to trade or hire out as laborers. Many of them are fairly well educated and can read and write Spanish. Some of the sons of the chieftains speak English; many indeed, are said to have forgotten the language of their fathers.

THE CHINESE QUARTER OF LOS ANGELES

CHAPTER

7

THE CHINESE QUESTION

No problem in California has caused more agitation and has more closely affected the community at large than that of the inhabitants of the Celestial Kingdom. Of late considerable anti-Chinese agitation has sprung up. A group has been formed that has declared, both by word and deed, a veritable war against this peaceful Mongolian invasion. As seen through the eyes of a European, it is idle to deny that much can be said on both sides of the question. Looking at this purely from the legal standpoint—there is a law permitting them to immigrate, to remain in the country, to work, but not to take out naturalization papers—the Chinese have every right to remain in the country, and to expel them would be a miscarriage of law and justice. In fact, now that they are here, their presence has become essential to most inhabitants of California. Esteemed for their loyalty, they are used in railroad construction, in mining, as gardeners, as farmers, and as workmen in manufacturing enterprises. In these various lines they have been highly successful, and without their help another quarter of a century might have elapsed before the material wealth of California could have attained its present development.

Furthermore, because of their suitability and cleanliness many homes use them as cooks and stewards. They also make especially capable laundrymen. Chinamen are hard workers and do not drink excessively. Since their needs are easily satisfied they are contented to work for much lower wages than white workers.

On the other hand, it is held that since these heathen do not observe Sunday, they are a demoralizing influence in a Christian

community and that they are peculiarly subject to leprosy and syphilis, and tend to spread this among the white race. However, that they are actually dangerous to the white race seems a grossly exaggerated belief. It is further asserted that they impoverish the country of its wealth by carrying out what money they have made, and that the country, instead of having their earnings put back into circulation, loses them; and that, finally, their lower standards of living are a menace to the white proletariat.

Granted all this were true, it would undoubtedly give grounds for consternation. But while it may not be possible to win over these Chinese to the Christian faith, yet it seems fairly evident that their presence is not jeopardizing Christian society. Their living conditions should be inspected, and, by establishing hospitals for lepers, segregating the tenements, and regulating sanitary conditions in their dwellings, the dangerous contamination of the European population could be largely circumvented. Moreover, as regards their departure from this country, it is not surprising that people who are denied citizenship and equality before the law should return home. And, finally, as to the agitation about the Chinese depriving the white man of work, it might be aptly remarked that the white population has much to learn from the simple standards of the Chinese and that cheap labor is highly advantageous for the welfare and development of the community and a veritable boon to the country at large.

Even now, their numbers are fairly formidable. In 1870, it was estimated that 140,000 Chinese had already come to the Pacific Coast and that of these numbers, 95,000 had remained. More, too, have been entering every day. In the year 1875, 18,000 entered—the largest number, up to that time, that had arrived in a single year. Among the Chinese immigrants entering California many are from the scum of society. Most of them came from Southern China and belong to companies which recruit workers in their home districts. These companies have headquarters in San Fran-

cisco and workmen are hired for a period of several years at the low wage of from four to eight dollars a month.

In Los Angeles the Chinese have their own quarters and are greatly in demand as laborers. Some have intermarried with Europeans. These are easily recognized by their appearance. American boys frequently hold up to scorn and ridicule these younger sons of China. At times, even the adults indulge in fist-fights which are brought about, as a general thing, by prolonged mistreatment.[1]

They live plainly and consume quantities of abalones. Ground squirrels and pork are among their favorite foods. All in all, they are not popular and in Los Angeles the anti-Chinese feeling is highly developed.

CHAPTER

8

HOUSES

The exterior of a house invariably indicates whether it belongs to an American or a Californian. That of the former is constructed of wood, and seldom of tile, while that of the latter is made of unbaked brick, clay, and adobe.

Wooden houses, on the other hand, are built usually of redwood, with white pine flooring. Ordinarily they are constructed with what is known, because of its lightness, as the "balloon frame." This is sometimes called the Chicago frame, for this was where it originated. The boards or planks are fastened together only with nails. The foundations are not, as a general thing, very deep—usually one row of bricks in the middle corresponding to the breadth and two at the sides according to the length. Over this strong planks are placed to conform with the way the rooms are arranged—at least in the case of large houses in the city. Small houses out in the country are frequently built directly on the bare ground. Buildings and dwellings last fairly well despite the fact that such light timber as 2x4's are used. From the outside these houses present a fairly good appearance; those of the more prosperous families are ornamented with verandas covered with masses of flowers. Usually the paint is gray or grayish-yellow in color. Adobe houses are often patterned after those in Mexico. While not beautiful in appearance, nevertheless they appear comfortable and suitable for this climate. They are invariably one story high and consist—no matter how affluent the owner—of one suite of rooms. The roofs are flat and made usually of asphalt *(brea)* mixed with coarse sand, which is laid on top of small planks or

boards, through which small wooden spouts are inserted. In some instances the roof is covered with shingles. Around the house run broad verandas supported by wooden posts. All the rooms open onto this veranda with the single exception of an ell which does not connect with the porch and has only one small window. This room is for the unmarried daughters of the house for among the upper classes in Los Angeles it was customary to lock in their daughters at sunset to shield them from clandestine flirtations. The interiors of the houses are very simple, many having merely clay floors; everywhere, however, the most scrupulous cleanliness prevails.

CHAPTER

9

AGRICULTURE

In rural communities, agriculture, truck-gardening, cattle-raising, bee-culture, and mining are the main occupations. In the city of Los Angeles trade, manufacturing, and fruit-raising are the most important activities. Agriculture being the basic source of wealth in the country it will be given primary consideration.

The agricultural zone of Los Angeles County comprises some 3,000 square miles. Of this about 50 square miles are under irrigation, a similar amount being cultivated without water, while the remaining 2,900 square miles are devoted to cattle-raising.

Subdivisions in various localities have already proven highly successful and flourishing settlements have sprung up on half-barren fields. Cattle ranches have now largely passed out of the hands of land-barons for they bring in slight returns when compared with lands under irrigation. For this reason they should be subdivided in so far as possible, and, wherever feasible, irrigated. It is impossible to overestimate the importance of the sale of small parcels of land at low figures. Many of the large land-owners, however, are now beginning to recognize the benefits to be derived from making lands now lying fallow available to settlers.

The soil in and around Los Angeles is highly adapted to cultivation as it consists mainly of a sandy-clay and mould. Along the coastal ranges is found chalky and tertiary-zone sandstone formation. Here and there near the mountains an occasional outcropping of granite appears. From the hills and mountains rich alluvial deposits are being constantly washed down by the winter rains which enrich the soil on the lowlands. Until the first rains fall the

plains look parched and brown; this seeming sterility, however, gives way to the most luxuriant vegetation when watered either by the winter rains or by artificial methods. The November rains bring out the young grass which remains green until it is turned into valuable hay by the summer suns. To see in mid-winter cattle grazing and birds singing as gaily as in the springtime is indeed a sight to delight the farmer!

The country out here is most beautiful in February or March. At this particular season everything is cloaked in green; even the oranges are sending out young shoots. This freshness lasts until the end of April, then, day by day, the beauty diminishes.

The district of Los Angeles is divided into small ranches. Since the soil is light, porous, and free of stones, the working over of even virgin soil in new territory becomes a light task. The first plowing is scarcely more difficult than subsequent ones. Cultivation begins usually in December just as soon as the hard-baked soil which, especially where the land is of the clay variety, becomes stiff and dry under the heat of the sun, is softened by the heavy rains. The sooner after October first the rains begin, the better for the farmer. The rains, moreover, must be adequate to penetrate the soil for at least 4 or 6 inches. To insure a good harvest, the soil should be plowed under twice before the ground is properly prepared for planting. This is especially important with virgin soil that is being put, for the first time, under cultivation. By so doing lands being farmed even on the tablelands will return nine good annual harvests out of ten, without irrigation, of castor-oil beans, Indian corn, barley, alfalfa, potatoes, and various kinds of vegetables.

From March to November is the season for planting. Whatever roots, fruits, vegetables, or grains are planted during this period grow rapidly and soon reach maturity. Plantings made during summer do not germinate until the first rains fall. Thus there is ample time for sowing, which, in other countries is of such brief

duration that it forces up the wages of workers, whereas here the actual time of planting makes very little difference. Potatoes planted in August grow as well as if they had been put in during March or April. In areas not under irrigation, however, wheat, barley, oats, and other grains are usually sown. As soon as the land has been prepared in the late autumn, planting continues on into March. Trees, too, are generally set out at this season.

By the middle of April the rains are usually over, and the harvesting can proceed in a leisurely manner, thus necessitating fewer workers. Grain can be left out in the field with perfect safety; expensive granaries are not needed. Given white men as supervisors, it is possible to raise annually two or three crops each season. Wheat and barley can be cut in the spring, like hay, in April or May. By the time they are fully matured Indian corn and potatoes come into bearing; after these are harvested the bean crop comes on. When one crop of potatoes is grown in the spring, a second crop will be ready by December. For the second or third crop, however, irrigation is essential. This question of irrigation, indeed, is of vital importance in California, since the water supply is limited and unreliable. To be able to place land under irrigation is thus one of the main objectives of every agriculturalist. If water can be procured successfully crops will inevitably follow for Californian soil gives results that are most extraordinary. When lands are irrigated, crops may be raised one after another.

Even if occasional dry years are to be feared they do not prove entirely disastrous, for loss of crops by a drought in one year instead of being detrimental to the harvests of the years following is, on the contrary, rather beneficial, since it allows the soil time to rest. The greatest hardship caused by drought is to the cattle-growers. A so-called dry season, which brings in its train a poor year, occurs when less than 10 inches of rain fall. A mediocre year follows with less than 12 inches. The worst drought occurred between 1862-4, when the combined rains of two winters brought

what was adequate for only one season.[1] On an average there are 7 good years in every 10; in the others the rainfall is subnormal. Even in dry years, however, California produces, all in all, more than the eastern states.

Nevertheless, in certain sections there is so much moisture that irrigation is unnecessary. In localities like these the soil requires only a minimum of working and, whenever seed is sown, a good crop invariably follows. Such lands, however, are limited in area and are quite valuable. Of these the most notable are El Monte and Gospel Swamp.[2]

CHAPTER
10

IRRIGATION

It has already been indicated how vitally important irrigation is to agriculture in Southern California. This will now be more fully discussed as well as what opportunities along these lines are available in the county of Los Angeles. First of all, some indications will be given of the advantages to be derived from irrigation.

What the soil vitally needs out here is water. When this is supplied no country will be more fruitful than semi-tropical California. Adequate water not only gives nourishment and refreshment but it also enriches the soil by contributing certain vital elements. In fact there are certain regions which have been merely watered and not fertilized and yet have proved equally fruitful over 70 years. This proves the truth of the axiom: The more water, the more fertility. Water is also valuable as a means of eradicating squirrels, gophers, and rats—these subterranean enemies of many fruit trees. Los Angeles, however, has an abundant supply of water; as a result its agricultural opportunities are limitless. There are two kinds of water; running water and springs. The first of these comes primarily from the principal rivers of the county. These—which, as has already been enumerated, are the Santa Ana, the San Gabriel, and the Los Angeles Rivers—rise in the mountains, and are fed by gushing streams and springs that originate in these vast, steep, rugged mountains over a stretch of 15 miles. For this reason they furnish a constant supply of water which is increased in winter and spring by the rains and the snows melting on the mountains. Owing to this supply Los Angeles enjoys a greater abundance of water than any other county in Southern California.

Of these the Santa Ana is the mightiest and largest river of any emptying into the Pacific between Cape St. Lucas and Monterey —a distance of over 1,000 miles. Rising in the San Bernardino Mountains it winds in a southwesterly direction for more than 100 miles through fruitful valleys, then, having been joined by countless tributaries, it enters Los Angeles County about 30 miles east of Wilmington, between Anaheim and Newport. Ten miles in from the ocean, however, its bed is dry 6 months out of the year. Along its banks lie 125,000 acres under irrigation; but of this amount, 80,000 acres belong to San Bernardino County. Its water contains so many valuable minerals that irrigation is extraordinarily beneficial.

The San Gabriel River which flows for some 40 miles in a southwesterly direction sinks away shortly after leaving the San Gabriel canyon, in the sandy soil. Some of its waters, however, have been diverted by irrigating ditches near the Azusa Ranch, where the settlement of Duarte is located. Considerably more might be accomplished, notwithstanding, by watering the fertile tablelands on either side of the river, which are now of little value. The moisture from this subterranean stream keeps the colony at El Monte, with its 10,000 acres, perennially green. From this point, as it passes through a gap in the Puente Hills, it apparently strikes some formation such as underground springs for, about 15 miles in from the ocean, it reappears with increased volume. One branch flowing southward forms the old San Gabriel and, as it spreads out over the plains, it deposits a large bed of sand and gravel. The other arm, enlarged by springs, flows into what is known as the New San Gabriel River. This has been diverted so far in a southerly direction that its mouth is now 9 miles from the old one. Its waters, however, never reach the ocean. The region stretching from east to west between the two rivers is of considerable width and forms one main valley known as Los Nietos, an area of some 10,000 acres.[1] For many years this has been watered by irrigating

ditches, but although the bulk of the water has been drawn from both rivers for this purpose, only two-thirds of this land is under irrigation, although, if economically handled under irrigation laws, all could receive water. Los Nietos, together with El Monte, has long had an enviable reputation because of its abundant water and its fine crop of Indian corn. The valley of San Gabriel and El Monte contains in all about 30,000 acres of land under irrigation; twice this amount, however, could easily be watered.

Moreover, it would be a simple matter to utilize one of the tributaries of the San Gabriel—San José creek—that rises east of El Monte, in such a way that ample water could be brought over onto its valley, a valley 20 miles long and a mile broad.

The Los Angeles River, the next stream of importance, is a westerly tributary of the San Gabriel. It flows for some 47 miles in a southeasterly direction after rising in the headwaters of the mountains at *Mokowenga* in the far end of the San Fernando Valley.The city and suburbs of Los Angeles utilize the major part of its waters; incidentally, it irrigates 60,000 acres. In years past *rancheros* often had disputes over the water supply, but now not only the entire city of Los Angeles but also all the vegetable gardens, orchards, and vineyards that extend for miles around the city are bountifully supplied with water. There is adequate water, as a matter of fact, for the city to expand out over the entire valley, and enough more to water several square miles. While Los Angeles has the best water supply around here, yet this should be conserved for future usage. For this reason, closed ditches would be of material benefit, retarding evaporation. The waters of the Los Angeles River are municipally controlled and strictly regulated to prevent waste. The flumes supplied by the water company divert the water from the channel of the river as it emerges from the mountains and before any of it is lost in the sandy ground. In wet winters, however, a stream of considerable size flows down for some 15 miles through the valley and unites with

the San Gabriel. The water is brought down into the city from this point of diversion and distributed by ditches, or *zanjas,* for irrigating and domestic purposes. These vary in size but the majority are 3 feet broad and 1 foot deep. The water travels at a speed of 5 miles an hour. Every proprietor is entitled to let the water run for as many hours a week as is justified by the amount of his holdings. The *zanjas* are in charge of an official called a *zanjero* who regulates the distribution of the waters and sees that the ditches are kept in order.

In addition to these rivers there are numerous small mountain streams. Of these the San Pasqual, Santa Anita, San José, San Antonio, Los Coyotes, de la Brea, Santa Agnes, Centinela and Cucamonga are the most important, although they empty neither into rivers nor into the ocean. Among springs are the San Gabriel and San Fernando, which rise in the Sierra Madre, as well as many at the foot of the mountains that might be utilized for watering 30,000 or 40,000 acres of valley lands. As a matter of fact several of the most extensive and finest vineyards in the county are watered by such springs. Of this the best proof is afforded by the thriving settlement of San Gabriel.

So important is the question of water that it is given constant attention. Of prime importance are the advantages to be derived from irrigating ditches, which, in California, are frequently handled as community enterprises. Whatever is of the slightest importance receives attention. Where the ground is especially low advantage is taken of the fact to build ditches. These are also valuable for watering cattle and fowl (ducks and geese). Within a decade, an abundance of water will be available wherever it is needed in the county.

In addition to surface water, a large part of Los Angeles County has a rich supply of underground water in her artesian wells which have, of late, received considerable notice. Until recent years there were no flowing wells. Now, however, they exist by the hundreds,

and are extraordinarily successful. One particular artesian well, 168 feet deep, carries enough water to irrigate one square mile, and supplies, at the same time, valuable water-power. Its entire cost was only $450. The largest number of artesian wells is found in the Santa Ana and San Gabriel Valleys where over 200 have been sunk to depths varying from 40 to 200 feet. Out there over a country of some 100,000 acres, artesian wells may be had at pleasure, at depths of 40 to 200 feet. In adjacent regions, where the land is higher, wells must be sunk from 100 to 200 feet. Seldom is the yield of a well diminished by the boring of a second well in the immediate vicinity. The formation consists mainly of layers of impenetrable clay from 5 to 100 feet thick, broken by intermediate layers of sand and shale. In the latter are found the subterranean waters that flow out into the ocean. Drilling for wells is continued until enough water-bearing strata are struck to bring in a flowing well. If the first waters prove inadequate the well is deepened. Eventually the deep water-bearing sands are struck, and the combined force of waters flowing in from the various strata gives ample water. Obviously, the deeper the well is drilled the higher it will flow. These artesian wells are explained by the fact that east of the coast lies a basin which is fed by the heavy winter rains and melting snows and which is not drained either by large rivers or by lakes. These waters accordingly seep into the porous soil of the upper strata and from there seek a subterranean channel to the sea.

Additional wells will be sunk when their value is more widely appreciated. Given this aid planting can be successfully accomplished in arid places and intensive farming can be practised by raising more than one crop in the summer. For general planting it is not necessary to irrigate more than three or four times, while fruit trees require watering only once a month.

For all practical purposes Holloday's Mills have given very favorable results; the wind is fairly constant and there are no frosts to cause pipes to burst. Many houses and gardens are supplied by

these springs which have turned Los Angeles—formerly nothing but a cattle pasturage—into a veritable garden.

CHAPTER
II

FENCES

CHARACTERISTIC of the Los Angeles landscape are the fences frequently seen along the irrigation ditches. These, as well as the water problem, should be given careful consideration. Usually such fences are of willow saplings, the larger the better. The largest used are strong saplings having a diameter of 3 inches and a length of 8 feet. These, which are generally set out in December, are planted 3 feet deep and 9 inches apart. When given ample water they usually thrive and in two years form a thick hedge. Frequently they are planted from 10 to 20 inches apart and the intervening spaces filled, when the trees are young, with branches. If large saplings are not available, long shoots ½ inch thick and 2 inches long are inserted. In this case, less than an inch is allowed to protrude above ground. Five years are required, however, for a dense hedge to form and in the meanwhile, branches and horizontal staves are used to fill the gaps. By the time eight or ten years have passed, these willows have grown into great trees 15 to 30 feet high, with 5 or 6 branches. This is done primarily to keep animals out of vineyards and gardens; it also affords pleasant shade on the highways flanked by these willows as well as supplying an abundance of fire-wood—an important factor in regions devoid of timber. Their rate of growth depends largely on how much they are watered.

Sycamore and cottonwood are also used for hedges; even if cut in their second year, when only 8 feet high, they afford considerable fire-wood. In and about the old missions, the cactus-fruit was frequently used for living hedges but, while it kept out large animals, gophers and squirrels were fond of burrowing under it both

for protection afforded by its large prickly leaves and for the nourishment it furnished.

Board-fences, as well, are extensively used. These in the main are 5 feet high and have at 6-foot intervals a redwood stake with 5 staunch redwood boards 6 inches wide and 1 inch thick inserted. When substantially built they cost $100 a mile. The vast cattle holdings and the many willow hedges now standing make it inadvisable, at the present writing, to press the "no-fence law" desired by so many landowners.

CHAPTER

12

MISCELLANEOUS PRODUCTS

In the variety and extent of its agricultural products, Southern California is the foremost state in the Union, and, with the annual increase in population by the arrival of new settlers who bring in new species from their own homes, this is rapidly growing more extensive. Under cultivation at the present are olive, fig, almond, filbert, walnut, orange, lemon, citron, and lime trees. The pear, which was planted so extensively by the early Californians and mission fathers, is also raised. Today it is not planted as extensively as formerly, for the varieties introduced were not satisfactory and may have been abandoned, while others have been superseded by better varieties. The apple tree, moreover, flourishes splendidly and begins to bear after the second year. By the fifth year it yields a good crop. Quinces and peaches raised from seed give fruit by the second year. Apricot trees grow to the gigantic height of 20 feet; plums, prunes, chestnuts—many of which, when 15 years old, give 100 pounds of chestnuts—nectarines, bananas (the West Indian variety is the best grown), and pomegranates flourish. The latter, which are propagated by seed or slip, grow in great variety. They do not seem, however, to be greatly in demand in the markets. Wine-grapes of all kinds are grown, as well as every variety of berry and melon. Pecans and guavas are also found in the gardens while strawberries can be set out every month in the year. The raising of fruit trees out here assumes extraordinary importance since they grow rapidly and well. There are, moreover, no worms in the apples and no weevils in plums and cherries. In Los Angeles the fruit trees are usually pruned low; this causes them to bear prematurely.

The trunk is covered, the earth around the roots kept dry, and the entire tree protected from the winds. Nearly all the trees, with the exception of plums and cherries, grow readily. Almonds, however, which are tender when in bloom, often fail to bear. Of the semi-tropical fruits, oranges have attracted the widest interest, and have been most successful.[1] Grapes have also proven highly satisfactory. Wheat, barley, rye, Indian corn, oats, hay, hops, buckwheat, popcorn, peas, white beans, castor beans, turnips, Irish potatoes, sweet potatoes (sweet or Caroline potatoes often attain a weight of 10 pounds), onions (weighing up to 2¾ pounds), saffron, and pumpkins in large quantities are also raised in abundance. Vegetables of every kind, moreover, are under cultivation and grow extraordinarily well, as the size they attain indicates. Many varieties of cabbages and turnips bear perennially while several kinds of kitchen-garden plants of the seed-bearing variety, when cut back, grow again. Green Indian corn, paradise-apples, green peas, and all kinds of fresh vegetables are to be had from May on to December.

Most of the plants under cultivation, however, have been imported. Grains were brought in largely by the mission fathers, as well as the olive, orange, walnut, almond, and pear trees, date-palms and wine grapes, and although these fruits had long been cultivated at the missions yet, in the days of the Spanish *ranchero,* it was impossible to erect hedges to protect the fruit trees from the vast herds of cattle. Moreover, since the first Americans came out to California during the gold and silver boom, this situation failed to arouse their interest. Not until a later day did they realize that the wealth of California was on top of, rather than under, the earth.

The most important facts about the principal plants under cultivation will now be discussed. The olive tree is grown successfully; only one variety which was probably brought over from Spain is represented. Trees planted by the missionaries over a hundred years ago are still in excellent condition. According to estimates,

more than 2,000 of these trees are in bearing, one-third of these being in the mission gardens of San Gabriel, San Fernando, and San Juan Capistrano. Year after year they bear crops with unfailing regularity. The olives ripen in March and are frequently knocked down with poles. Large and of excellent quality, they give not only a fine grade of oil but are also good for pickling. The natives prefer them salted, according to the Spanish custom. The Americans, however, use them only for oil and pickles. For the latter use they are picked when mature but not fully ripe, soaked in brine, then bottled in a solution of salt and water to which fennel has been added.

Olive trees are propagated out in this country by planting slips or shoots from full-grown trees. Sixty or 70 of these shoots may be planted to an acre. These when mature will give 1400 gallons of olives having a value, on the tree, of $.60 a gallon; 20 gallons of olives will make 3 gallons of olive-oil, which brings wholesale $4 or $5 a gallon. Since pickled olives, on the other hand, are sold at $.75 a gallon, the production of olive-oil is more profitable. On an average, profits running from $200 to $500 may be realized from an acre. Gophers, however, frequently devour the roots of young trees, but these are their only enemies. Not enough stress can be laid on the importance of cultivating this very useful tree and it is highly desirable to plant it over larger areas. What seems mainly to prove a hindrance is the fact that olive trees grow too slowly for people who wish to grow rich rapidly.

The fig tree is likewise an excellent grower and gives a double crop annually. Estimates place the number grown here at 3,000. Up to the present writing, however, the business of drying fruit has not been developed. Only about 1,000 almond trees, a tree that is grown universally throughout California, have been set out in the county of Los Angeles. That other trees have been given the preference is probably due to the fact that the tender almond blossoms, as previously mentioned, suffer from late frosts and frequent-

ly fail to mature properly. They grow best in a sandy, clayey soil. Several varieties of almonds are grown in Los Angeles, especially the *Languedoc,* which has been developed from trees imported from France. These blossom late, bear heavily, and have, moreover, a paper-like shell. From 100 to 150 trees are planted to an acre. These come into bearing in their third year and by their fifth give 12 pounds to a tree; that is, 1,200 pounds to an acre. At an average price of $.20 a pound this brings a return of $240 per acre. The annual revenue from each acre with fully grown trees is estimated at $400. Young trees suffer from the ravages of squirrels and gophers. These, however, can be exterminated with patience.

The walnut tree has been extensively planted in California; Los Angeles alone, according to estimates, has 6,000. Three-year old trees can be readily transplanted and, by the seventh year, have been known to yield crops. The tree is very hardy but requires plenty of water. Given ample irrigation, it spreads over a considerable area. Some even attain a height of 20 feet and send out branches measuring 15 or 20 feet in width. They are rapid growers; fourteen-year-old trees often have trunks 42 inches in circumference. They bring in a generous income—often $30 a tree annually. By the twelfth year the crop amounts to 100 pounds; by the sixteenth year this is doubled. Thus one acre with 40 twelve-year-old trees gives a crop of 4,000 pounds of nuts, having a value of $400. As the trees grow older, the annual receipts increase proportionately. With trees in full bearing the returns are estimated to run from $600 to $1,000 an acre. The demand for preserved green walnuts, moreover, is very great.

The Franciscans originally introduced the orange tree into California, the first being planted at San Gabriel Mission. Soon after these came into bearing, Don Luis Vignes started an orchard in Los Angeles.[2] This was followed by William Wolfskill's orchard —one of the most celebrated throughout the country—which was the first private undertaking of any magnitude, being developed

from what was originally merely a horticultural experiment, or nursery.[3] Don Manuel Requena next planted oranges, setting them out in a garden enclosed by an adobe wall. But on the whole comparatively few orange trees were cultivated. Fresh impetus was given this industry by the arrival of the Americans. In 1853 Matthew Keller and Dr. Halsey imported some seeds from Central America and the Hawaiian Islands and established nurseries.[4] Those of Dr. Halsey were the larger. After the departure of these men, William Wolfskill acquired their holdings. Dr. Shaw, too, has grown oranges in his nursery from seed brought in from Nicaragua. Among the early orange-growers Wilson and Rose were especially prominent. In 1874, 34,700 orange trees were growing in Los Angeles County. Since that time, however, not only have many new orchards been planted but those already established have been noticeably enlarged, until now with its total of 48,850 orange trees, Los Angeles ranks at the center of orange culture in California.

As a general rule the trees are raised from seed, only seeds from the finest oranges being selected for this purpose. The seeds are planted in pots prepared with sandy, clayey soil, covered over, and the surface kept moist. It is also feasible to sow them in the ground.

After three or four years they are transplanted and then require water only five or six times in the dry season. Years ago it was not considered advisable to attempt to raise oranges from seed, but only from shoots grafted from budded trees. Mr. Wilson demonstrated that cultivation from seed was the better method. Stock can be purchased cheaply in the many nurseries in the city of Los Angeles. Five-year-old trees cost $3 a hundred; four-year trees, $1.50 a hundred; three-year trees, $.40 to $.60; two-year trees, $.03 to $.20; and one-year trees, ½ cent a hundred. Forty, 50 and even 60 are planted to an acre. Seven or 8 years after planting from seed the oranges will bear fruit. A large crop, however, is not produced under 12 years. By the fourteenth year, they produce from 1,500 to

3,000 oranges, and by the seventeenth year they have attained their maximum growth. They are notably long-lived; in the mission gardens at San Gabriel are trees nearly 90 years old. The orange groves at San Gabriel are usually watered every six weeks; three or four days after irrigation they are thoroughly cultivated. The most successful growers do not prune their trees. In the majority of orchards willow-poles are used to support branches that are heavy with fruit.

Orange trees blossom in spring and the fruit ripens in December or January. The flavor is at its best in April. This allows the producer four months to dispose of his crop to the trade. The Californian orange is usually a sweet orange combining the characteristics of the fruits of Florida, Louisiana, and Havana. It resembles the first in size, the second in skin, and the third in its excellent flavor. This fruit lasts longer on the tree and is better adapted to shipment than other varieties, although it cannot be denied that the Sicilian and Mallorcan oranges are superior in flavor.

The income from oranges is surprisingly large, fully-grown trees returning, on an average, from $20 to $40. A few years ago, Mr. Wilson received $1,500 from 110 trees. Mr. Rose, who had 50 trees in full bearing had an income of $1,500, or $30 a thousand oranges. This means an income of $45 a tree, or $2,700 an acre. With 10 acres this would give an income of $27,000.

Mr. Wolfskill has an orchard containing 2,000 trees; from each of these sixteen-year-old trees an annual crop of 1,500 oranges was picked. In fact many trees have produced as high as 2,800 oranges. Even if these are not, perhaps, typical instances but the result of intensive cultivation, nevertheless, it may be assumed that every 60 trees planted to an acre will produce 1,000 oranges a tree. These, taken at the low valuation of $20 a thousand—certainly a low figure—would bring in an income of $1,200. One man, it is estimated, can easily handle 20 acres. If to his salary is added the cost of harvesting, boxing, freight and commission for handling fruit—which

should not exceed a total of $300—the net profits would amount to $900 an acre. General Swineman sold fine oranges on the tree at $18 a thousand. Their value is not exaggerated since the markets in San Francisco consume this fruit in large quantities. From December on through May oranges bring even as much as $20 or $30 a thousand; the best, as high as $35 a thousand. No less than 6,000,000 are shipped into San Francisco from Los Angeles and the surrounding country. There they are seldom sold much under $.50 a dozen retail and from there on up to $.75 a dozen. The southern trans-continental railroad will be of vital importance for transporting fruits for which there is a great demand and which can only be grown in certain parts of the United States. Even if, in the future, the profits should not be so fabulous, nevertheless, they will be fairly substantial. Should the profits sink from $1,000—the present minimum—down to $100, what is this in comparison with the eastern states where growers make about $10 an acre! Out here, moreover, Indian corn and vegetables can be grown on the same land with the oranges. While orchards in full bearing can only be purchased at fancy prices yet money is well spent in buying orange groves. Nor will it be necessary to wait long for returns, for if good-size trees are set out they will come into bearing in six or eight years. Mr. John Shirley Ward illustrates how this remarkable income is arrived at:

1,000 acres of land	$ 6,000
7,000 five-year trees, including planting	7,000
Interest on $13,000 for 5 years at 10%	6,500
Care and cultivation for 5 years	5,000
Taxes and irrigation	500
Total cost of orchard at end of 5 years	$25,000
Fruit from 7,000 orange trees at $10 a tree	$70,000

In this way, an outlay of $25,000 brings in after 10% has been deducted for interest, $45,000 annually. The annual income, after 5 years, will be $70,000. These figures are based on returns of $10

a tree, whereas mature trees should return from $20 to $40. At the end of 5 years the trees should be worth $1,000 an acre, making it possible to realize from the original investment of $25,000 at least $100,000. The cultivation of oranges on a large scale should be a highly profitable business for capitalists. However, it cannot be undertaken by those without ample funds, since it is too slow and too costly. For the latter it should be subordinated to farming or raising grapes, and, in cases where the grower can raise the plants with slight expense, from seed.

The orange tree, however, has its enemies; young trees are attacked by gophers and the greatest care must be taken to keep these underground enemies out of the groves. There is also a disease peculiar to oranges that appears on the leaves, resembling a grayish-black soot, which is probably caused by some plant parasite. According to the reports of Joseph Wolfskill—who owns an orange grove near Los Angeles (his interest in groves is evident from the fact that he realized 50,000 francs from one crop)—this disease is said to have originated first in Southern California and from there gradually to have spread to Los Angeles, being carried toward the northeast by the southwesterly prevailing breezes. Disastrous, too, is the gum-malady, a kind of sweating of the tree, where the gum flows out sporadically after being peeled off, leaving a scar behind. And finally there is the whitemold, especially common in the green lands of the plains which are heavily watered, thereby causing the roots to die away, and, eventually, the entire tree. This is frequently attributed, although erroneously, to the gnawing of the roots by field animals.

The Sicilian lemon is excellent, and is easily raised from shoots or roots. While requiring water it is less care than the orange, being considerably hardier. On the other hand, it also grows more slowly, bearing fruit only after its tenth year. It does not come into full bearing until its sixteenth year. A heavy bearer, its fruit may be picked throughout the year. Some trees yield $100 annually.

Mr. Byle, for instance, derived, from 5 selected thirteen-year-old trees, $1,500. Their price, in San Francisco, is $30 a thousand.

The Chinese lemon, which is almost as large as the citron and which ripens all year, has a flavor that for mixed drinks, for fine pastry, as well as for eating, is unexcelled, even by the Sicilian lemon. Nevertheless, it has not yet come to be popular commercially, although used to some extent for preserves. According to estimates, there are 8,350 lemon trees in the country.

For a time, the Mexican lime was cultivated in large quantities; now, however, it is being superseded by trees that are bringing higher profits. Notwithstanding, it is a ready bearer and yields constantly. Every tree bears fruit at least 10 times a year, bringing in a revenue of $50 to $75 annually. Since it is a small tree, from 200 to 300 can be planted to an acre. Their fruits, which at times measure 18 inches, weigh, occasionally, 3½ to 4 pounds. These are suitable for drinks, medicinal purposes, for salads served with oysters, and, with tender fish, are better than lemons. The lime, which like the citron is used only for preserves, and which is accordingly less intensively cultivated, requires irrigation. It bears fruit in 4 or 5 years. In Los Angeles in the year 1875, 3 trees that were given no special care bore fruit valued at $45.

Among all the products of Los Angeles none, probably, is more important than the grape. The so-called mission grape was brought in by the fathers in 1770 and extensively raised by the Indians under this tutelage. This, presumably, was of the malaga variety known as *Vino Carlo*. In Mexico, however, from where the first cuttings were imported, many of its salient characteristics were lost, and it no longer resembles the malaga grape. Though only a fair wine can be made from it, the fathers gave it the preference since it was both hardy and a prolific bearer. Even now 75 per cent of the grapevines in California are hardy bearers. In shape it is perfectly round, being when fully developed about three-quarters of an inch in diameter. While ripening it is of a reddish-brown

color; when fully ripe it is a beautiful black and full of sweet juice, but without aroma. This is a considerable detriment, not only in the preparation of wine, but also in its use as a table grape. Wine made from this sort of grape is quite strong, resembling port and sherry. In and about Los Angeles the mission grape is especially popular and it was not until 1853 that new varieties of grape, especially those from Europe, were imported. These have gradually taken the place of the old mission grape, such kinds as the Flaming Tokay, Rose of Peru, Black Morocco, Black Hamburg, and the White Muscat being highly favored.

In the year 1859, the advantages of grape-raising in California came to be more generally recognized and because of its excellent climate and suitable soil California is destined to become one of the greatest wine-producing countries in the world. Southern California is particularly adapted to this purpose more than any of the eastern states being undisturbed by storms or frosts and free from those parasites that are so injurious to European vineyards. The oidium did, indeed, appear in 1859, but has done comparatively little damage. There is seldom a crop failure and in general it may be said that Californian vineyards ordinarily produce twice as much as those of other regions. Los Angeles, however, is the best grape district of the state. The total number of grapevines in California is estimated at 30,106,429, of which 4,250,000 are in Los Angeles. As vineyards are not watered except the first season they are set out, large areas may be utilized. There is one stretch of country especially adapted for this purpose that stretches for a distance of some 50 miles, and lies about 20 miles in from the ocean. The planting of vineyards requires no great amount of capital since good vineyard land is available in large areas and at low figures. Grape cuttings are inexpensive and grow rapidly. For this reason Los Angeles will produce more wine no doubt than is now made in the entire state. Even now this country produces one-third of the total output.

Between January and March cuttings taken from three and four-year-old vines, which have already put out roots and have been standing for several months in the winter season, are planted. These are usually placed in rows 6 and 7 feet apart; at 6 foot intervals, a thousand shoots may be set out to an acre. By the third year the vines have already come into bearing and begin to give, on an average, 3 to 6 pounds of grapes. By their fifth year they yield a good crop of 7,000 to 9,000 pounds an acre. In six years the vines are in full bearing. They continue to grow, however, until the sixteenth year, increasing to a maximum yield of from 15,000 pounds, and even, at times, to as much as 18,000 or 20,000 pounds an acre. When the vine is about 3 feet high, from the crown masses of leaves and grapes begin to develop. The vine, however, is allowed to grow undisturbed, so that it becomes quite tall. In Los Angeles there is one vine that was trained on the sunny side of the house and is now 25 feet high. The largest vineyards are those of B. D. Wilson in San Gabriel, with 200,000 vines; L. J. Rose, with 130,000; and Matthew Keller of Los Angeles, with 100,000. The crop is harvested between the middle of September and the first of October. The unripe and damaged grapes are carefully separated and those who do not make their own wine sell their grapes to the large vineyards who press wine, usually at $1 or $1.25 a pound. As a matter of fact, there are about three dozen large wineries in the Los Angeles valley which handle nearly all the produce of the small proprietors. The vineyards in and around Los Angeles are largely controlled by Mr. Matthew Keller.Wine making, as the following figures indicate, is in a flourishing condition. In Los Angeles were produced, in 1859, 500,000 gallons; in 1863, 1,000,000; in 1872, 3,000,000; in 1875, 7,000,000 and in 1876, 10,-000,000. Brandy is distilled in large quantities and furnishes one of the main sources of income in the country. One of the great advantages of this wine is that it is made from pure grape-juice, for the local vines bear so heavily that it does not pay to adulterate

it. Most of the wine produced is red wine, although considerable white wine is also manufactured. To port, or angelica (an unfermented wine) brandy is added to preserve it. This, however, is done quite openly, the brandy being prepared in the same vineyard. The warm climate allows the wines to ferment without artificial heat. Kegs, however, are quite expensive. In Los Angeles very little wine is kept in regular wine-cellars, but in adobe cellars which are sunk about three or four feet in the ground and have a three-foot wall of adobe and a thick cover. However, these places are kept fairly cool. The local wines are becoming more generally known from day to day in the States and even now they are shipped in large amounts to eastern consumers. Of late, considerable attention has also been given to the raising of good table grapes and every year new varieties are introduced from seedlings. These are shipped even as far as the eastern States. In New York eastern grapes sell for $.40 a pound.

Another very productive branch of the grape-raising industry is that of drying grapes which is especially facilitated by the dry summers in California. For this purpose, grapes are often placed on the tile floors of a building that has a glass roof. The white malaga is the best variety for this purpose and will, if properly set out, bear 10,000 pounds to an acre. Manufacturers figure 4 pounds of grapes to 1 pound of raisins. Equally suitable for this purpose is the white muscat of Alexandria, an early and prolific bearer; the second year after planting it returns a good income. An acre of those vines bearing 12,000 pounds of grapes gives 4,000 pounds of raisins which sell for 10 cents a pound. The mission grape, which is tough and has large seeds, makes poor raisins.

There are several more plants whose cultivation has already been started but which, up to the present, have been largely of an experimental nature, but might later prove lucrative. Among them are India rubber, banana, coffee, and tea plants. The latter grow well but it is questionable whether they will be able to compete

with the output of China and Japan since labor here is a costly item. Tobacco, up to the present writing, has been raised only with considerable difficulty. However, it can be cut twice a year, and is coming to be more widely cultivated. Hops, which are raised only in limited quantities, flourish and bear from 2,000 to 3,000 pounds to an acre. Climate and soil are well adapted to their growth and it is probable that in time they will become a crop of considerable importance. The sumac is also suitable for planting and, with its fragrance, is of material assistance in raising bees. The cultivation of certain plants used in textiles such as hemp, jute, ramie, and flax promises to be successful. The latter gives from 1,000 to 2,000 pounds of seed per acre.

Cereals are the largest source of wealth in Los Angeles. This is clearly indicated by the fact that at present 15,250 acres are given over to the cultivation of barley, 7,000 to wheat, and 15,425 to Indian corn. Barley is king of Los Angeles County. It is, moreover, highly adapted to this climate, for no year is too dry for a good harvest, provided the ground is plowed 10 inches deep and the seed is sown as early as possible in December. In places where the soil is very porous the ground only requires to be turned over lightly once with a plow, nor is it an exaggeration to say that of the two million acres that form the arable soil of the county, at least one-half give splendid crops. Since at any time during the summer months, as already indicated, seed may be sown, and since several crops may be planted, how much one man is able to accomplish! The second year the field has only to be harrowed, for the seeds that have dropped out at harvest time are adequate for a new crop and even, at times, for a third which often exceeds the first in yield. Barley, as a matter of fact, is raised in large quantities. It is used as fodder for cattle, horses, and hogs, especially in the mining districts. It is therefore greatly in demand and the prices here are as high as in San Francisco. Intelligently cultivated, barley yields from 40 to 60 bushels an acre. Rye is becoming increas-

ingly popular among the farmers; it grows about 6 feet high and yields 40 bushels to the acre. Wheat grows readily; it cannot, however, be raised advantageously in the lowlands near the sea, since the fogs cause it to rust, but only about 40 miles in from the coast. The California wheat is rivalled in hardness and dryness only by that of Chile. It can be stacked in masses without warehouses, and, two weeks after harvesting, can be stowed away in ships and sent to the tropics without fear that it will become heated or sweat.

Buckwheat has been successfully raised in the country and has, on the whole, given excellent results. Before the advent of the Americans and as late as 1855-1856 the hills were covered with wild oats. Now, however, this has largely disappeared, probably because of sheep being pastured in the hills. No more has been sown and what has come up has grown from the seeds that have been left on the ground after the harvest. It makes a nourishing, wholesome, and palatable fodder for cattle. In the few fields thus planted the average yield is between 20 and 24 bushels per acre annually. Many oat crops, notwithstanding, are cut down like hay, since they yield little seed in proportion to straw. The slender kernels are usually gathered with a machine called a "header" which extracts merely the tips of the panicle. Barley, wheat, and oats are threshed and stacked on the field, then left standing there or along the highway frequently for weeks at a time until the grain is sold or shipped. With the dryness of the local summer, there is no danger of the grain being damaged.

Canary seed and broom corn grow well, as does rice, especially the small African variety. Maize (Indian corn) is well adapted to damp soil, and, until recently, Los Angeles was the outstanding region in California for its cultivation. Even now, about 50 per cent of the land is devoted to this grain, and this acreage is increasing daily. These regions have the advantage over the Mississippi Valley in that no rains fall in the summer and that there are no wild weeds. There are also many stretches of country which

are naturally damp where maize may be grown without irrigation. Even on dry ground good harvests have been developed. Given irrigation, Indian corn is even more successful since two crops can always be raised on the same land. If barley is sown in winter and harvested in May, the field then watered and maize planted out, a good crop will be assured even if the ground is planted, at the latest, the second week in July. It is not customary to work the soil immediately after planting, except when weeds grow or after irrigating; in this case the land must be plowed to prevent the soil from caking.

What lands are now planted out to maize bring in from 50 to 125 bushels an acre; this latter high figure is reached in the damp country near Los Nietos and El Monte. The average, however, is from 70 to 80 bushels. The price rarely sinks below a cent a pound.

A crop that likewise looks highly promising is the sugar-beet, that grows to an enormous size. Some, in fact, are 30 and 40 inches in circumference and 4 feet long, weighing as high as 118 pounds. One advantage out here is that they do not have to go to the expense of protecting them, as in Germany, from the cold. Sugar-beets are planted out in January and February, in time to catch the late rains. The dry spring weather that soon follows is highly beneficial for the development of the sugar content. If left in the ground, they will grow not only throughout one year, but for two years. Beet-raising holds many possibilities for profit since it is a highly valuable fodder for cattle. A quarter of an acre planted out to beets will feed two cows.

For extracting sugar, pumpkins could also be raised to good advantage. These, in California, grow readily and to an extraordinary size—some even weigh as high as 100 to 205 pounds and contain about five per cent sugar. Sorghum could also be used for this purpose.

Castor-beans are quite generally cultivated and return, on an average, 1,500 pounds per acre to the value of $56.

White beans return one ton an acre, or $40, and as they can generally be replanted two or three times a year they are a sound investment.

Potatoes were not in the beginning successful, as they were raised from poor seed in damp soil.[5] These conditions produced a variety that was practically unmarketable, being badly spotted. Given proper cultivation in suitable localities, the results are excellent. They can even be planted as late as the middle of the summer season. An early harvest is followed by a second, and, owing to the dryness of the climate, crops can frequently be left in the ground after ripening. The yield is from 10,000 to 30,000 pounds an acre. Potatoes prefer a rich, sandy soil. In Los Angeles, the average price is $.01¼ a pound; an acre thus returns approximately $100 to $300 an acre. At present 1,875 acres are under cultivation.

Among plants cultivated, none is so important as alfalfa, or the Chilean clover, whose seeds were brought into California from Chile and which yields an extraordinarily rich harvest, but requires considerable water. In summer alfalfa grows an inch a day; in winter, half an inch. As a result, it has a growth of 25 feet a year. It does not require replanting, growing luxuriantly year after year. Monthly, or at least every three months, if watered or planted in damp soil, it will yield from 12 to 18 tons of rich hay per acre. When green it makes excellent fodder for livestock. Indicative of the possible profits to be derived from its cultivation may be mentioned the fact that a farmer in Los Angeles County purchased an acre of land for $50, planting it to alfalfa. He had six harvests, which he sold at $10 a ton. Since one acre produced 12 tons, the field yielded him $120 an acre profit.

In concluding, several other plants should be mentioned. One of these is the cactus or prickly-pear, whose fruits, called *nopales,* are eaten. *Choyas,* on the other hand, are often found growing wild out on the plains.[6] This latter fruit is, up to the present time, of no value. Neither is the giant candelabra-cactus of California

which covers vaſt areas and affords shelter to wild beaſts. The yucca (bayonet tree), growing so abundantly on the deserts beyond the Sierra Nevada and which affords so majeſtic an aspect with its tall ſtems often 35 feet high, can, on the contrary, be utilized in making a high-grade paper. An eaſtern firm has already procured machines for this purpose, but has been unable, up to the present, to find cheap transportation.

Southern California is especially adapted to gardens since so many plants can be made to grow readily and to bloom with extraordinary beauty. Bushes usually flower for a long period. Every variety of tree also develops rapidly. Certain kinds of palm throw out branches measuring 11 feet, and attain a height of 35 feet. Frequently, too, bushes and plants from foreign countries are introduced into these gardens. Of indigenous plants, the moſt ornamental bush is the *Coenothus,* which is a prime favorite.[7] Fuchias, very rapid growers, are popular, as well as roses, of which many varieties are available. The Australian bean (creeping-vine) is frequently seen; it produces thick evergreen foliage, heavy with blossoms, and is often used to cover verandas. The handsome pepper tree that yields the white pepper of commerce, is seen everywhere. Out here, however, it is utilized solely for ornamental purposes. The blue-gum, *Eucalyptus globulus,* is likewise a favorite. The latter deserves special mention since it is planted in masses everywhere. It grows with extraordinary rapidity, as much as 20 feet a year. The varying shape of the leaves is worthy of note. These are usually broad and round, but if well nourished they grow into an elongated, lance-like shape. Even with poor soil old trees will usually have long leaves. Young trees with long leaves will, when planted in rich soil, send out shoots with amazing rapidity. Although developing with much rapidity, eucalyptus furniſhes a ſtrong, hard, durable wood. Large areas of this useful tree have, moreover, already been planted. The largeſt foreſt is on the Anaheim branch of the Southern Pacific at a point where it crosses

the San Gabriel River, about 12 miles from Los Angeles, where 190,000 trees have been set out. This forest belongs to the Forest Grove Association of which Judge Widney is president.[8] In December 10 pounds of seed were brought down from San Francisco, and the seeds planted in a nursery. When two months old, the shoots were transplanted into a low box and set 2 inches apart. By April, the young plants had a height of 9 or 10 inches, and at that time they were set out in the ground 10 feet apart. Within a year they were from 9 to 12 feet high.

Not enough emphasis can be laid on the advantages of reforestation. In addition to the small number of evergreens and alders that are found growing in limited areas, the plains are unwooded. What groves are found have no value for productive purposes except indirectly, by attracting moisture. In fact there is a law compensating anyone planting trees along a road fronting or passing through his property.

In the canyons north of the mountains there are, however, extensive forests which can be utilized and which are accessible partly by the San Fernando and Cajon Passes and which will, within a short time, have a more direct connection. Up to the present writing, on account of the difficulties of transportation, building materials are brought into Los Angeles by sea from ports along the north coast of California. After the lumber is taken off the ships, they are loaded again with grain. Two kinds of wood are imported, redwood and cedar (known as Oregon pine). The price per 1,000 feet in Los Angeles is $32.50 for unfinished, and $42.50 for finished lumber.

CHAPTER

13

LAND VALUES

Obviously the price of land varies according to soil and location. Lands fall into four main divisions. First-class land is taxed at a valuation of $.25 to $4 an acre and includes pasture land, marshes, alkali lands, mountains, rocky land, and river-beds. The average price of inferior pasture-land is $2.75 an acre. The second class, assessed at $5.88 an acre, covers medium lands such as good grain and farm lands. When land is near the city such lands have a value of $25 to $100. In the fourth class, which is estimated at $25 to $50, are vineyard and orchard lands that have water. The best clayey soil is usually valued at $30 to $40 an acre; land suitable for raising semi-tropical fruits is sold, generally, at $40 to $60 an acre. Good vineyard land brings $15 to $50; select fruit land, $75 to $200; olive lands, at $100 to $150. The richest lands in and near the city naturally bring much higher figures.

Upon arriving in this country the prices of land seem, to the inexperienced, to be inflated. But in California, although land may be had at any figure, of what value is dry mesa land where only one harvest of winter grain can be grown and which stands idle throughout the entire summer? Naturally an acre of land with 50 full-bearing orange trees that bring in returns of $1,000, or a fertile piece of well-watered land that will bear crops worth from $100 to $300 annually will command a fair price. The purchaser must also keep in mind the fact that production out here is approximately twice what it is in the Eastern States.

CHAPTER

14

BEE AND SILK CULTURE

In Los Angeles County the raising of bees is an important industry. Fifteen years ago the first swarm of Italian bees was imported into the country and the local conditions proving especially favorable, they soon multiplied rapidly. In fact the white sage blossom that grows so luxuriantly on the plains and mountains afforded so pure and white a honey that it soon came to be greatly in demand. Its extraordinary clearness and rich flavor similar to that of the Hymethis honey, moreover, gave it a leading place in the markets. Since the bees out in this country work actively for 9 or 10 months large amounts of honey are collected.

In 1874 there were as many as 22,000 beehives in the State; of these, 7,000 were in Los Angeles and San Diego Counties. By 1875, Los Angeles alone had 4,570 hives and the yearly increase is now estimated at 150 per cent. If the yield from each hive is computed at 150 pounds—which is a modest estimate since hives often produce 200 pounds—with 5,000 hives the yield would amount to 750,000 pounds of honey. At a price of $.08 (in San Francisco in 1876 the price for comb-honey was $.25 a pound, and for strained honey $.09 to $.12) this would give Los Angeles County a yearly income of $592,000.

Both slopes of the Sierras afford excellent food for bees since they are rankly overgrown with white sage, while the mountain range near Santa Monica is one of the best honey-districts, both as to quality and quantity, in the State. Bees in Los Angeles County have three deadly enemies: the wax-moth, the bee-bird, and the lizard. The two latter catch the bees on the flowers; the

former go into the hives and destroy them, if not promptly discovered and eradicated.

Wild bees are hunted by placing on the ground out in the fields, a piece of burning wax, and nearby, some honey. The bees lured by the smell come and alight on the honey. Upon being satiated they fly toward their hive. The hunter, who is waiting for the bees to swarm to the hive, then catches some, puts them in a pasteboard box, and follows the direction of their flight. If he believes he has missed the hive he liberates a bee; if she flies forward, the hive is ahead; if she flies back, he knows he has missed the hive and must retrace his steps. This is repeated as often as necessary, and several hours frequently pass before the next is located and the hunter brings the honey and swarm in triumph to his own hive. As proof of the keen interest in bee-culture a Bee-keepers' Association has already been formed by 40 of the most enterprising bee-growers in the county with meetings every other month.

Los Angeles County with its equable climate is also adapted to the silk industry, particularly since mulberry trees flourish readily. Most attempts, however, which have been made were done hastily and without proper knowledge of how to plant out mulberry trees. This was brought about by the offering of a State prize in 1867 for all mulberry trees planted and for the largest number of cocoons in proportion to the number of trees.[1] No restrictions, however, were placed on the quality and many people believed they could plant trees as thickly as in a nursery and that they would receive the same rewards for poor cocoons. Many trees, too, were set out in damp soil, for this reason the caterpillars feeding on them did not flourish. In 1870, the mania for premiums came to an end, and it is highly probable that much cocoon raising will prove a failure. As a matter of fact, however, there is already in Los Angeles a very large colony of men interested in growing cocoons.

CHAPTER

15

CATTLE-RAISING

Cattle-raising has long occupied an important place in the development of Los Angeles County and although not so extensively pursued as during the Mexican régime (it no longer pays to retain intact great stretches of rich pasture-land), yet stock-raising still flourishes, several influential citizens being keenly interested in rearing fine stock.

The country out here is peculiarly adapted to this purpose since it has ample water and excellent grass both on the foothills of the Sierra and also in the valleys. The young grass begins to sprout in December and lasts until June when it is cut for hay and grain. Cattle are thus grass-fed until the first of June, given hay from June to October, and supplied with grain from October to December when the winter rains begin.

During the winter and spring months are found two plants that afford them considerable food; *alfilerilla (Erodium cicutarium),* and bunch-grass.[1] The former which is the most abundant of all the native growing grasses grows thickly on the hills and plains, affording with its light greenish-yellow coloring a soft tone to the landscape. This is one of the richest foods for cattle. In summer and autumn wild oats and burr-clover furnish excellent fodder. The former, which the cattle eat when green, retains its nourishing seeds for a long period; the latter contains seed in a little spherical burr about a quarter of an inch in diameter which it bears in triple bunches. Even after the meadows turn earth-brown in color, cattle and sheep can subsist on these seeds on land which to the inexperienced appears to be a desert. Practically all

pasture-lands are devoid of weeds, and yet there are times when the cattle suffer from lack of fodder when, for instance, the grass has been blighted, or has lost its nourishing properties. The first occurs when the grass, owing to light rains during the previous season, grows poorly; the second, when heavy rains fall for several days prior to the New Year followed by cold, dry weather. In this instance the rain washes away the vital elements in the old grass whereas the cold, dry weather retards the young shoots, causing the cattle to go hungry. In 1856, 70,000 cattle died of starvation—one-third of all the stock. In 1863-1864 there were also heavy losses. Formerly, if there was danger of food shortage, great herds of livestock were driven hundreds of miles over into Arizona. Through the raising of alfalfa, however, these dangers have been largely obviated; in fact cattle-raising has been practically revolutionized to its material benefit.

Alfalfa as a fodder is unexcelled for producing milk. An acre of alfalfa will feed 20 sheep at a cost of $3 a head, whereas on mesa land now utilized for sheep ranches, two or three acres are required to support a similar number at an outlay of from $4 to $6 a head. The cow can live on a quarter of an acre; one acre will keep 15 hogs in good condition, although to fatten them for market a small amount of Indian corn is added. For farm-horses, alfalfa is also excellent fodder. Not only is this highly advantageous as well as the fact that cattle can be fed throughout the year on green fodder, but also the fact that maize and other grain can be cut monthly for feed. Moreover, owing to the dryness of the climate hay can be stacked up in the open field, thus eliminating the need for expensive barns—another boon to cattle-growers. Then, too, the mammoth beets and turnips grown are suitable for feeding cattle, being especially fine for steers. One-fourth of an acre planted twice a year to beets will keep 2 cows for one year, a fact previously mentioned in discussing beet-growing. Work-horses are fed barley and hay. Owing to these favorable conditions, how-

ever, cattle in California grow more rapidly, become fatter, and give a particularly excellent quality of beef and mutton superior to that of other cattle.

Among the many kinds of live-stock raised extensively in Los Angeles County are sheep. Considerable attention is given their breeding and many fine herds have been raised by prominent *rancheros*. Undoubtedly, this country is admirably suited to sheep-raising. A two-year-old sheep out here is as large and fat as a three-year-old in the eastern states and gives more wool. Before they are a year old they already bear young. Scab is prevalent in a mild form. In the early days, the herds multiplied rapidly; in 1867, there were 148,700; in 1870 the tax-assessor reported that there were 482,372 sheep in the county. This ratio of increase, however, was not constant; in 1875, the herds numbered only 484,682. Of late, owing to the encroachment of agriculture which has driven out many herds of sheep into other counties, a decrease has been noticeable. Notwithstanding, sheep are profitable sources of income. Estimating them roughly, in the year 1874 at half a million would give four million pounds of wool—20% being taken off at an average clip. In 1876, the wool clip amounted only to three million pounds.

In Los Angeles County sheep during the daytime are pastured out in the open, guarded by herders. On large ranches, a shepherd herds 1,000 sheep. Herders in California are usually Indians, Californians, Chinamen, or Scotchmen; of these, the latter make the best herders. At night the sheep are shut up in corrals to protect them from attacks by beasts of prey who are afraid to come over low fences. Enemies of sheep are the puma, wild-cat, fox, and coyote. The latter are readily poisoned by meat, saturated with strychnine. The former are hunted when they prove too troublesome. In mountain regions the shepherd often sleeps at the entrance of the corral on a platform called a *tempestra* raised about 12 feet off the ground on thick posts rammed into the earth as a protection from

grizzly bears who cannot climb. Animals brought from Australia and Scotland are used for shepherd dogs. They are very intelligent and understand the word corral so well that they can drive an entire herd inside with remarkable skill. Stockmen prefer the French and Spanish merinos, and, while the herds may not multiply rapidly, yet the quality of the wool is superior.

One of the most successful sheep-ranches in the county is that of J. Bixby & Co., Cerritos, containing about 25,000 acres and 10 artesian wells.[2] Bixby has been in business seventeen years or so, and has 30,000 sheep, 25,000 of them belonging to the company. They are all Spanish merinos and give about 10 pounds of wool a year, sheep being sheared once in the spring and again in the fall. The shearers are Californians, and receive $.05 a fleece. One man can shear 40 or 50 sheep a day and as each fleece is thrown down on a counter the shearer is given a check worth $.05. Once a week all these checks are paid in cash.

After shearing, sheep are dipped as a preventative of scab. This is accomplished by submerging them in a dip of tobacco and sulphur. Mr. Bixby, however, expects to secure the same results through the use of steam. After being dipped in the reservoir, the sheep come up a plank runway out into the open, and are kept for the next six months in pasture.

Goats are comparatively few in number; several cashmeres, however, have been recently imported.

Steers are also fewer than under the Mexican régime—although, in 1875, they amounted to 16,408. Many of them, however, have been shipped out to regions where grass is especially abundant. Even if the numbers have diminished yet the breeds have improved materially and a fine foreign strain has become established. English, Spanish, and American stock has gradually been replaced by others, Durhams, Ayrshires, and Guernseys being especially popular. The former run wild over the ranges and do not require special fodder. With the introduction of new breeds there has

been a decided increase in the output of butter and cheese. This is an industry fostered by the Americans, but largely neglected by the early Californians whose so-called Spanish cattle were brought in in 1770 from Mexico by the Spanish missionaries. At what period these cattle were introduced into Mexico is unknown, but it must have been shortly after its conquest by Cortés. In type they are a small, well-formed breed with long, thin feet, large, wide horns, and a wild appearance; they do not fatten readily, nor do the cows give much milk. On the other hand, they calve early, usually before two years old, and at times even at fourteen months.

During the era of Spanish colonization and Mexican rule—as already observed—cattle-raising was one of the chief occupations of Californians. Cattle were slaughtered solely for their hides and tallow; meat being discarded since there was an over-supply in comparison with the needs of the scanty population. No *ranchero* had less than one-quarter of a square league (4,438 acres) and the government gave, without compensation, from one to eleven leagues to anyone who was willing to build a home and stock the land with 100 head of cattle. For a man to possess 5,000 cattle was not unusual. Cattle roamed at random, cows being kept for breeding. Steers, on the other hand, were killed when three or four years old. Calves were usually born early in the year and by March the first rodeo was held to brand young calves. There were, and still are, what are called general and special rodeos. The general rodeo is held under the auspices of all cattle-growers in the immediate vicinity; a special rodeo is held by a private individual who wishes to check over the cattle on his own ranch. A rodeo may thus serve for one ranch or for several; every large ranch, however, holds its own rodeo, usually once in the spring and once in the fall, being required by law to hold at least one a year. When a general rodeo is to be held invitations are sent out weeks in advance to all the neighbors. The *vaqueros* drive the cattle to the appointed place, which usually remains unchanged from year to year—and the

cattle, accustomed to the proceeding, frequently run in by themselves. Visiting *rancheros* who come from the greatest distance are usually allowed to select their cattle and drive them away first. Frequently these rodeos last several days. Rodeos, as a general thing, are held in rotation, usually starting from the south and working north. The *rancheros* attend each rodeo in succession where they believe they may find some of their cattle. Often there are from 12 to 20 of these round-ups, each attended by 10 or 15 *vaqueros* and friends, making a small army. Cattle are recognized by the brand, while calves follow the mothers. The spring rodeos are in reality jolly, pleasant parties where each *vaquero* displays his skill in riding and lasso-throwing, which requires extraordinary knowledge of cattle. In times past every one attended these festivals in gala attire. Contests were often held, a favorite sport at rodeos being an exhibition where the rider approaches a cow or a steer and, catching the animal's tail, holds it between his foot and the saddle and rides parallel to the creature. When the horse runs too fast the rider is thrown off head-first.

The lasso, usually called the *riata,* is a leather rope some five-eighths of an inch in diameter, and 30 yards long, made of 4 strips of braided cow-hide, which has been stripped of hair and smeared with fat. It is usually thrown a distance of 15 or 20 feet. There are some *vaqueros,* however, who can lasso a cow 30 feet away.

When a *ranchero* returns from the rodeo he brings his herd into a corral, usually an enclosed area from 30 to 50 yards square surrounded by a staunch fence, where the calves are branded. If too many have been brought back from the neighboring ranches to brand in one day they are herded until the work is completed. When marked the cow is set free; usually she returns to the ranch to which she has grown accustomed. This is of no importance to the *ranchero,* provided she does not wander to ranches whose rodeos he did not attend. Only when serious grass famines occur do the *rancheros* drive strange cattle off their ranches.

After the rodeos are over the cattle on each private ranch are next branded. Every morning about 200 cows with their calves are driven into a corral. There, while one *vaquero* holds the cow by the head and another by both feet with a lasso, the brand is burned on the flank. The law requires the branding of all horses and cattle and a copy of the brand, burned on leather, has to be deposited in the county recorder's office.[3] All cattle and horses 18 months old must be branded, delinquency being classed as a felony. The brand on the hip denotes ownership, but if the owner plans to sell his cattle, they are branded on the shoulder. This denotes sale. The buyer then brands the cattle on the flank. Thus the hide of a Californian horse or cow records the history of his past ownership. Every servant who has animals of his own must also use the brand of his master.

In autumn rodeos are held usually to mark calves that were overlooked in the spring or were too young for branding. Some *rancheros* also use another mark, such as a slitting of the ears, or a notch on the dewlap. Of this, a drawing must also be deposited at the office. It is illegal to clip or cut the ears in any way for such an act would eradicate marks inserted by owners. In 1875, there were 11,707 horses owned by Californians. Years ago horses were numerous, having been brought over from Spain to Mexico in the Sixteenth Century and from there into California about sixty years ago. This breed is a small, rugged animal, often mouse-colored, dull brown, and wiry, but quick, sturdy, and quite suitable for the *ranchero;* however, they are unfitted for hard labor. As riding horses they were unexcelled in early California, being able to carry a rider one hundred miles in a day and feeding exclusively on grass. To ride sixty miles a day was not considered extraordinary. Formerly, in the days of the great ranchos, they were banded in *manadas,* or herds, under one stallion. Mares foaled as a rule before they were three years old; the colts were then put into the *caballado,* quarters for training horses. When three or four months

old the colts were branded. The early Californians never trained their mares and considered it beneath their dignity to ride one. To-day, in Los Angeles may be seen in place of the half-wild bronchos, handsome American and foreign-bred horses. In this respect Los Angeles County is second to none and will probably within a short time rival the famous blue-grass region of Kentucky. Trotters, especially large, beautiful animals imported from the eastern states, are in great demand.

Mules are few in number; they are not favored by Americans who consider them ugly. Of late, some fine mules have been bred from the donkey stock of Kentucky.

The raising of hogs is especially worthy of note. In 1875, there were 6040 hogs in Los Angeles County, most of them of such excellent stock as the bristle-hog which has increased steadily within recent years. This, indeed, is due to the fact that they are raised on alfalfa and maize. Acorns, too, are frequently used for fodder.

Comparatively few dogs, with the single exception of shepherd dogs, are seen in Los Angeles, although the small rat-terriers so often encountered in America are fairly common.

Poultry-raising, up to the present, has never attained significant proportions, although it is on the increase. Poultry in the Los Angeles markets sells usually for $5 to $7 a dozen; eggs bring $.50 a dozen.

CHAPTER

16

HUNTING AND FISHING

HUNTING around Los Angeles is excellent; especially along the coast and the marshy lands are found ducks and geese by the millions. They are, however, very shy, since hunters are numerous. California quail, cotton-tails (a species of jack-rabbit), and every kind of small game are to be found along the mountain ranges and the foothills east and north of the city where they seek shelter in the thick underbrush that covers much of the country. The San Fernando, San Gabriel, San José, and Cucamonga Valleys are particularly famous for their hunting. For big game it is necessary to go high up into the San Fernando, Soledad, or Fort Tejon country, where deer, antelope, mountain sheep, and cinnamon bear are common. While strenuous hunting, it is fine sport. Frequently in Los Angeles large parties are arranged for the hunt, many sportsmen going into the mountains two or three times a year.

If the extermination of the small mordants that destroy crops may be termed hunting—and that is what it actually is—ground-squirrels, it should be said, are hunted mainly by poison, especially strychnine and phosphorus. The former is placed on wheat; the latter on wheat and flour. Another method used is to dip a rag in kerosene, sprinkle it with sulphur, light it, and put it in the hole, at the same time stopping the mouth and any other exits from which smoke might escape. A bellows has also been invented with a container for burning sulphur which is used to pump poisonous smoke into the hole. Gophers can also be killed with phosphorus and strychnine; however, they are more readily caught in traps than spermophiles.

Deep-sea fishing affords rich booty from whales down to oysters. This sport, moreover, is still in its infancy. Most fishing is done off the wharfs at Wilmington and Santa Monica where fish weighing five and six pounds are caught. Frequently sharks and porpoises are harpooned. Fishes in large numbers are caught in nets for the Los Angeles markets. In the mountain streams further inland fine brook-trout and salmon-trout are also caught. The latter are usually taken with what are called gill-nets. These have meshes barely large enough for the trout's head to pass through, which catch him behind his gills. The net does not touch bottom since the fish swim fairly near the surface, but is stretched diagonally across the stream or a section of it and floats with the current for several hundred yards or even half a mile while the fishermen follow behind in a boat.

CHAPTER

17

MINING

Despite the fact that gold was first found in Los Angeles County, it is of considerably less importance as a mining center than for its agricultural activities, which were neglected for a considerable period in favor of cattle-raising.

The story of the discovery of gold is as follows: it was first found in 1833 by natives in the gravel and sand on the hills near the northern boundary of the county.[1] Dr. Abel Stearns, who had come out from Boston in 1829, assayed the gold and sent it to the mint in Philadelphia, receiving in return gold coins. This was fifteen years prior to the great gold strike.

In 1854, gold was discovered in sand and gravel beds by Captain Hannager and a party of prospectors from Los Angeles in San Gabriel Canyon, about 18 miles from Los Angeles.[2] In 1855, these claims—a claim by the way, means mountain mining land staked out by individuals or companies—were worked by several men. Soon after, however, they were abandoned. In 1871, Dr. Winston and Mr. Anderen introduced the hydraulic system of mining, bringing flumes 5 miles to the entrance of the canyon. Mining, at the present writing, has been pursued with profit. Until recent years, however, owing to the great agricultural wealth of the county, gold-mining has of late been comparatively neglected. Indicative of its importance, notwithstanding, is the fact that, during the past 18 months, Messrs. Ducommon and Jones, Los Angeles merchants, have purchased more than $8,000,000 worth of gold-dust from the placers of the San Gabriel River, while probably twice this amount has been bought by other dealers and merchants in

San Francisco. The fact that one-twentieth of all gold extracted is usually lost in washing must, moreover, be taken into consideration.

Approximately 3 miles from the mouth of the San Gabriel and 24 miles from Los Angeles are the Zapata mines carrying rich silver-bearing veins. These mines, which belong to Dr. Winston and his associates, have good indications. Work on them, however, has been interrupted owing to slides. In 1861, copper was discovered in Soledad Canyon at the source of the Santa Clara River and shortly after $300,000 was expended for its exploitation. This ore runs from 85 to 90 per cent. Unfortunately, since it was found primarily in pockets, the workings failed to pay since ore was not present in large quantities. On a sandy hill a few miles northwest from the abandoned tunnel, gold-bearing quartz was found in 1862, but not in commercial amounts. Traces of alum, cinnabar, lead, gold, and silver are to be also found in many parts of this country. Cinnabar deposits have, moreover, been located in the chalky cliffs along the coast. Mercury, too, is present in several parts of the county, while extensive tin deposits of great wealth have been discovered, especially in the southern and eastern ranges. Capital for their exploitation has not, however, been forthcoming. Large deposits of coal, unfortunately, have not been located, despite constant searches. A good grade of marble in paying quantities has been located at Anaheim and San Fernando. Gypsum deposits, believed to be 30 miles in extent, are reputed to exist in the mountains; these, however, have not yet been carefully inspected.

The greatest mineral wealth of Los Angeles promises to be petroleum. The Pennsylvania oil-fields being already on the decline, a new field promises to open up out on this coast. About half a mile from the shore, in the general vicinity of Ventura and Santa Barbara, the ocean is covered with a thin film of oil about 10 miles in length and stretching far out to sea. This, which is ascribed to submarine oil-wells, is highly significant, as is the steady seepage

from hidden oil-sands near the shore which discharges into the ocean.[3] The oil region in the Ventura district stretches westward from Ventura and, paralleling the coast, reaches the ocean at Ortega Hill, finally striking off in an easterly direction to Santa Paula Creek, forming the oil-lands of the Sespe Mountains and the San Fernando Range. By so doing it embraces three counties, Santa Barbara, San Buenaventura, and Los Angeles, and extends for 100 miles. The San Fernando oil-fields, however, are alone of importance in this narrative as falling within Los Angeles County.

The district of San Fernando lies in the northwest corner of Los Angeles County. On the north it borders San Francisquito; on the west, the Sierra of Santa Susanna; on the south, Rancho Simi; and, on the east, Mission San Fernando. It also adjoins the foothills on the northeast slope of the San Gabriel Mountains where, toward the north, stretches the Santa Clara Valley.

In a lone spur of the San Fernando Range about 35 miles from Los Angeles, oil was discovered in February, 1865, by Mexicans who, while out hunting bear, became thirsty and began to search for water. Finding a brook that emitted a strange odor of petroleum, they struck a match which immediately ignited. Cognizant of the importance of their discovery one remained on the ground to establish possession while his partner hurried off to Los Angeles to inform some of the most influential citizens—among them General Andrés Pico, Dr. Vincent Gelcich, Colonel Baker, and Messrs. Wiley, Leaming, Stevenson, Rice, Todd, Lyon, and Andere—of this discovery. These men decided to go out and stake claims measuring 1500x600 feet apiece in conformity with the mining laws, and instruct the discoverers how to protect their claims.

The first claim was named Cañada Pico (General Pico's holding, later owned by the Star Oil Working Company), the second was called Wiley, the third Moore, the fourth Rice (this is now owned by Dr. Gelcich), the fifth after a man called Leaming, the

sixth for Gelcich, and the seventh for Todd. Toward the close of 1865 the district was incorporated and several companies formed. In 1867 Macpherson and Scott of the Pennsylvania Company of Philadelphia vainly sought to acquire possession. Dr. Gelcich had, however, realized the importance of these holdings and had drilled a well on the adjacent high ground. In 1873-1874, Dr. Gelcich purchased all claims in Rice Canyon from the owners, paying considerable amounts. Recently squatters have come in, but through the efforts of Mrs. Gelcich, a member of the Pico family, the wells were released despite her husband's absence.[4]

The main shale body can now be traced, and reveals a stratum 400-500 feet wide running northwest and southeast for about 6 miles near sandstone deposits 32° southwest. The crude oil has a gravity of 40° Baume. None of the wells yields paraffin.

In 1874, Dr. Gelcich started a refinery that will soon produce 300 barrels a day. The crude is 80 per cent pure oil. Even with a refinery capable of handling 1500 barrels a day, the capacity would be inadequate to handle the total daily production of the wells. In the beginning, the problem of transportation proved difficult; now, however, the railway is only 6 miles away and at the Andrews Station, two hours out of Los Angeles, wooden tanks have been erected for storing oil. Furthermore, the Star Oil Working Company has established a refinery which is running at full capacity. Of crude oil, 60 per cent goes into an illuminating oil of high gravity with 120°-130° fire test, 25 per cent is extracted as a lubricating oil; the balance is fuel.

Closely associated with these oil-wells are the numerous valuable asphalt deposits which are found throughout the county. Oil, as a matter of fact, flows out from strata of slate and sandstone; where the shale is penetrated flowing oil emerges; where, however, the upper strata are formed of rock, the oil is found in the form of tar, that is, oil that has been transformed into asphalt through oxidation. This, as it seeps out, resembles a black, tar-like

fluid which hardens upon striking air. In cool weather it becomes extremely hard; at 75° it becomes soft; at 85° it becomes liquid. The principal deposits and springs are in the La Brea Canyon, Los Nietos, the Santa Susanna Mountains, the San Pedro Hills, San Juan Capistrano and the plains near Cahuenga Pass, lying about 7 miles in from the ocean and a similar distance from Los Angeles. The latter are very large, rich deposits that extend out over a considerable area. Major Hancock's asphalt works, that prepare from 2 to 3 tons daily for the markets, are located nearby. Here the raw asphalt is boiled in huge kettles for twelve hours over a hot fire. The sediment thus having been precipitated to the bottom, the slack is then removed. The asphalt is next poured into forms made of sand where it is shaped. Of the total, one-third is slack and sediment, especially the latter which is saved and utilized in its entirety for food.

This asphalt is largely used for roofs and sidewalks. For the former purpose it is in common use on many of the Californian houses in Los Angeles. It is also in demand for the manufacturing of glass.

In conclusion, extraction of salt from salt-deposits, which is conducted on an extensive scale by Mr. Trudell about 13 miles from Los Angeles, is worthy of mention.

In the course of time more mineral wealth will undoubtedly be discovered. In the adjacent counties many mines have been prospected while the inauguration of rail connection with Arizona will prove an inestimable boon to Los Angeles as a mining center.

CHAPTER

18

INDUSTRIES

Even if industrial activities in Los Angeles are somewhat behind those of other States in the Union, yet daily progress is being made in this direction. Water-power is proving an invaluable aid; two excellent flour-mills which are doing a good business have already been established, as well as several saw-mills, planing-mills, woolen-spinning mills and an ice-plant. Wagons and carriages of good quality are also being produced, as are goldsmith's wares of excellent quality. There are as well several shoemakers, quite a number of good tailors, an iron-foundry for making columns and other miscellaneous equipment used in building houses, and a stove-manufacturing plant. Tile of excellent quality is made extensively and sells for $8 a thousand. In 1875, an Eastern firm, known as Titus, established a plant for manufacturing artificial stone. In its manufacture Portland cement is mixed with pure white sand—Los Angeles has an ample supply of a high-grade sand—which thus becomes as hard as stone in a few days. It is extremely durable. Up to the present time only six-inch water pipes have been made. These, which sell at $.25 a foot, are a boon to the farmer in handling irrigation, since they effect a great economy of water. Conduit-pipe and drain-pipe, as well as ornamental objects, are also made by the Los Angeles Terra Metal Pipe Company. Out in the San Fernando Valley there has been discovered an extensive deposit of porcelain-earth where a factory will soon be established.

The principal industry of Los Angeles, however, as has already been indicated, is the production of wine and brandy. The manufacture of olive-oil and mustard is likewise of considerable impor-

tance. In Los Angeles County there are 45 distilleries, 3 breweries, 2 cigar-factories, 283 retail liquor dealers, and 247 retail tobacco establishments.

Ship-building, in the course of time, also promises to become of importance industrially along the coast. Indicative of this is the fact that, in 1876, 49 ships were built on the Pacific coast in California.

CHAPTER

19

TRADE

In Los Angeles County business consists largely of the sale of domestic products to the San Francisco Markets, and the supplying of miscellaneous wares, agricultural implements, and building material, to the back-country. Mining is still in its infancy. However, this will receive a great impetus when Arizona is opened up, and the mines in the desert basin north and east of the Sierra Madre have rail connection and are highly developed, for all these regions will prove heavy consumers. Meat, grain, hay, vegetables, butter, and cheese all will be purchased in Los Angeles—the nearest point—and from semi-tropical California in general. Upon considering the needs of the great numbers of miners, the commercial future of the coastal country can be readily imagined.

There are already four banks in Los Angeles and yet there is room enough for several more. In this new country money is greatly in demand and interest rates are high. The leading bank, the Farmers and Merchants Bank, is capitalized at $500,000; its stock is held almost exclusively by several of the richest citizens.[1] It pays monthly dividends of $5.

The Temple and Workman Bank which was organized in 1871 has the confidence of the public at large.[2]

The Commercial Bank which was established on December 1, 1871, is capitalized at $300,000.[3]

The Los Angeles County Bank is the only institution that is primarily a Savings Bank.[4] It has a capital of $300,000 and pays a semi-annual dividend of 5 per cent. The bank makes commercial loans, conducts a savings bank business, and buys exchange on

London, Paris, Berlin, and Frankfort. The average interest rate charged for gold loans secured by firm collateral is 1¼ to 1½ per cent a month, with extra brokerage charges of 1 to 2 per cent.

To give an accurate picture of the present-day trade activities, there is given below a table showing the freight hauled by the Los Angeles and San Pedro Railway from January 1 to December 31, 1873, compiled by Truman.

Assorted Wares	2586 packages	246,500 pounds
Wine and Brandies	303,670 gallons	3,036,700 pounds
Wool	10,488 bales	3,626,389 pounds
Bullion	58,056 bars	4,826,741 pounds
Fruit	14,342 boxes	1,003,940 pounds
Ore	2,129 sacks	212,050 pounds
Hides	437 bales	65,550 pounds
Rawhides	4,664 bales	260,361 pounds
Dressed hides	5,574 bales	94,758 pounds
Maize	46,400 sacks	5,527,768 pounds
Maize and Rye	8,888 sacks	1,055,360 pounds
Oats	34 sacks	2,511 pounds
Beans	4,926 sacks	383,367 pounds
Rye	2,579 sacks	286,420 pounds
Corn	245 sacks	30,590 pounds
Wheat	5,308 sacks	653,317 pounds
Pop-corn	240 sacks	29,092 pounds
Borax	433 sacks	47,505 pounds
Nuts	1,141 sacks	82,594 pounds
Hay	787 bales	175,400 pounds
Hops	96 bales	18,692 pounds
Eggs	467 boxes	35,180 pounds
Honey	1,625 crates	199,680 pounds
Bees-wax	58 boxes	2,094 pounds
Asphalt		356,934 pounds

Oil	97 barrels	38,800 pounds
Empty casks and bags	44	2,640 pounds
Dried fruit	475 boxes	29,545 pounds
Tallow	192 boxes	36,037 pounds
Trees and shoots	72 crates	7,200 pounds
Sharks' fins and abalone	442 boxes	70,691 pounds
Vehicles	7	10,500 pounds
Horses	11	11,000 pounds
Hogs	1,194	268,650 pounds
Sheep	17	1,700 pounds
Express-Freight		132,000 pounds
	Total	24,479,045 pounds

The following tables from the *Herald* disclose the imports and exports for 11 months in 1875 carried over the Southern Pacific Railway, indicating the total trade between Wilmington and the back-country, with the exception of what large amounts went via Santa Monica and Newport on MacFadden's Steamer and by barge to Anaheim. While this table indicates that exports are noticeably lighter than imports, it should be recalled that, in the first place, a considerable amount of agricultural products was sent by freight into the interior to the mines and that also, in a country like this which is developing rapidly, the importation of building materials, machines, and agricultural implements naturally predominates. Indicative of this development is the enormous amount of lumber imported.

In that particular year, the total amount of building-material received was 13,338,180 feet; laths, 3,324,280; shingles, 5,602,168; cross-beams, 734,400; fence-posts, 29,300; and pikes, 20,000 feet. Importation of assorted wares amounted to 39,269,651 pounds. Total exportation totalled 43,756 tons. Exportation, including what was handled by ship totalled 12,891 tons, or 2,478,923 pounds of miscellaneous wares; 3,124,539 pounds of wool (this was an

exceptionally poor year); 2,937,132 pounds of wine; 11,772,842 pounds of grain; 1,973,842 pounds of fruit; 424,639 pounds of hides; 176,514 pounds of honey; 41,991 pounds of livestock; 1,538,824 pounds of bullion; 435,250 pounds of ore; 73,507 pounds of potatoes; 19,492 pounds of hops; 536,055 feet of mill-products; and 81,148 pounds of borax.

LOS ANGELES, IMPORTS

Assorted wares, pounds	29,476,504
Building materials, feet	11,549,719
Laths, number	3,142,980
Shingles, number	4,904,418
Cross-beams, number	633,650
Fence-posts, number	21,381
Piles, number	20,000
Ties, number	110,520
Live-stock, pounds	13,000
Total pounds imported	71,650,111

LOS ANGELES, EXPORTS

Assorted wares, pounds	1,566,829
Wool, pounds	1,128,825
Wine, pounds	2,105,157
Grain, pounds	1,433,511
Fruits, pounds	1,601,460
Hides, pounds	416,759
Honey, pounds	77,683
Asphalt, pounds	1,117,393
Bullion, pounds	4,375
Ore, pounds	137,389
Mill-products, pounds	236,055
Total pounds of exports	9,825,436

IMPORTS, WILMINGTON

Assorted wares, pounds	1,196,971
Building materials, feet	231,249
Shingles, number	3,000
Cross-beams, number	1,000
Fence-posts, number	525
Live-stock, pounds	3,120
Total pounds of imports	7,423,901

EXPORTS, WILMINGTON

Assorted wares, pounds	475,519
Wool, pounds	561,411
Grain, pounds	238,987
Live-stock, pounds	11,100
Total pounds of exports	1,287,017

IMPORTS, COMPTON

Assorted wares, pounds	112,131
Building materials, feet	2,004
Fence-posts, number	704
Live-stock, pounds	2,000
Total imports in pounds	140,935

EXPORTS, COMPTON

Assorted wares, pounds	26,847
Wool, pounds	75,841
Grain, pounds	1,393,071
Potatoes, pounds	58,802
Total exports in pounds	1,554,561

IMPORTS, DOWNEY

Assorted wares, pounds	790,599

Building materials, feet	1,306,957
Laths, number	151,300
Shingles, number	450,000
Cross-beams, number	94,175
Fence-posts, number	6,054
Total imports in pounds	5,829,240

EXPORTS, DOWNEY

Assorted wares, pounds	26,743
Wool, pounds	1,861
Grain, pounds	6,645,781
Live-stock, pounds	3,300
Castor-oil products, pounds	56,743
Total pounds of exports	6,743,428

IMPORTS, NORWALK

Assorted wares, pounds	3,915

EXPORTS, NORWALK

Assorted wares, pounds	16,550
Wool, pounds	95,810
Live-stock, pounds	6,030
Total pounds of exports	118,390

IMPORTS, ANAHEIM

Assorted wares, pounds	1,037,107

EXPORTS, ANAHEIM

Assorted wares, pounds	125,558
Wool, pounds	645,864
Wine, pounds	212,066
Grain, pounds	1,136,587

Honey, pounds	10,630
Live-stock, pounds	21,561
Asphalt, pounds	4,660
Potatoes, pounds	15,405
Castor-oil products, pounds	56,660
Total exports in pounds	2,228,991

IMPORTS, SAN FERNANDO

Assorted wares, pounds	1,341,529

EXPORTS, SAN FERNANDO

Assorted wares, pounds	12,330
Wool, pounds	2,125
Honey, pounds	18,663
Bullion, pounds	1,526,989
Borax, pounds	81,148
Total value of exports in pounds	1,641,255

IMPORTS, SAN GABRIEL

Assorted wares, pounds	433,699

EXPORTS, SAN GABRIEL

Assorted wares, pounds	33,170
Wool, pounds	1,832
Wine, pounds	515,963
Grain, pounds	252,457
Fruit, pounds	372,390
Total exports in pounds	1,175,812

IMPORTS, EL MONTE

Assorted wares, pounds	265,472

EXPORTS, EL MONTE

Assorted wares, pounds	22,601
Wool, pounds	13,593
Grain, pounds	439,356
Honey, pounds	22,933
Fruit, pounds	12,747
Castor-oil, pounds	12,507
Hops, pounds	19,492
Total pounds of exports	534,229

IMPORTS, SPADRA

Assorted wares, pounds	3,140,189
Building materials, feet	17,973
Shingles, number	60,000
Fence-posts, number	400
Live-stock, pounds	40,000
Total pounds of imports	3,262,079

EXPORTS, SPADRA

Assorted wares, pounds	132,934
Wool, pounds	436,190
Wine, pounds	11,436
Hides, pounds	7,880
Honey, pounds	31,137
Fruit, pounds	241,572
Total pounds of exports	861,149

IMPORTS, COLTON

Assorted wares, pounds	1,471,465
Building material, feet	282,215
Laths, number	30,000
Shingles, number	184,750

Cross-beams, number	9,575
Grain, pounds	27,375
Fence-posts, number	265
Total pounds of imports	2,125,895

EXPORTS, COLTON

Assorted wares, pounds	39,642
Wool, pounds	150,392
Wine, pounds	92,410
Honey, pounds	15,468
Bullion, pounds	7,460
Fruit, pounds	43,602
Total pounds of exports	348,974

OTHER STATIONS WHICH HAVE NO AGENTS

Assorted wares, pounds	210
Wool, pounds	10,795
Grain, pounds	53,102
Total pounds of exports	64,107

The following are the exports and imports dispatched over the Southern Pacific Railway from January 1 to June 30, 1876, compiled by Dr. Gelcich.

IMPORTS

Building materials, feet	8,641,880
Laths, number	1,116,300
Shingles, number	3,029,750
Cross-beams, number	394,324
Fence-posts, number	36,395
Coal, pounds	1,139,860
Beef, fattened for market	19,500

Beef, slaughtered	16,624,392
Total imports in pounds	53,171,131
Total imports in tons	26,095½

To this must be added the imports taken from the records of the Southern Pacific and other railroads, of wood, coal, and miscellaneous wares totalling 13,082 tons.

Below is given the total amount from January 1 to June 30, 1876, of 39,167½ tons:

EXPORTS

Beans, pounds	95,266
Zweiback, pounds	3,972
Brandy, pounds	93,900
Olive-oil, pounds	156,493
Bullion, bars	28,529
Fruit, pounds	714,289
Honey, pounds	199,004
Hides, pounds	276,137
Hops, pounds	7,662
Grain, pounds	9,355,226
Hay, pounds	40,000
Miscellaneous products	658,231
Slaughtered cattle, pounds	362,250
Various wares, pounds	520,081
Vegetables, pounds	184,481
Wool, pounds	3,382,832
Wine, pounds	1,186,742
Total exports in pounds	17,365,097
Total exports in tons	8,682½

Throughout California, gold is the medium of exchange.

CHAPTER
20

STEAMSHIP, RAILWAY, AND POSTAL SERVICE

SHIPPING is, and always will be, of vital importance to the commerce of Los Angeles. Since the distance from San Pedro to San Francisco by sea is only 400 miles—by rail it is about 500—connection by water is an inestimable advantage. From Santa Monica, the distance being only 360 miles, swift steamers can reach San Francisco almost as quickly as trains.

The entire trade along the Southern Californian coast is in the hands of the Goodall, Nelson & Perkins Steamship Co. This concern has a fleet of ten ships called the *Santa Cruz, Kalorama, Monterey, Senator, Orizaba, Mohongo, Ancon, Los Angeles,* and *Salinas.* A tenth has recently been purchased. Five of them are sidewheelers; the others have screw propellers. Sailings are made from San Francisco on alternate days. The *Orizaba, Mohongo, Ancon, Senator,* and *Los Angeles* stop regularly at San Pedro and Los Angeles. The *Ancon* and *Orizaba* run to San Diego. The *Kalorama, Monterey,* and *Salinas* carry freight only. They are all large and comfortable boats, built more like river than ocean steamers owing to the calm weather they encounter. They are usually three-deckers with cabins and broad decks on each side. Prices for transportation are extremely low. From Wilmington to San Francisco the fare is only $10, whereas by rail it is $13.

Of late the Pacific Mail Steamship Line has begun to compete with this company, which put their prices down to so low a level that many travel by the Goodall Steamers up and down the Cali-

fornian coaſt merely for a summer vacation. The Pacific Mail Steamship Line now has a boat sailing for Panama once a month that puts in at San Diego, San Pedro, and Santa Monica on its way up the coaſt. In addition to these ships there is a semi-monthly service between Newport and San Francisco via a small 300-ton ſteamer owned by Mr. MacFadden.

In Los Angeles County there are now 129 miles of railway. The main branch of the Southern Pacific Railway runs for 25 miles north through the San Fernando Valley to where it meets the Sierra Nevada, then pierces the mountains through the Tehachapi Pass, and extends on toward San Francisco. A branch line runs eaſt 35 miles to Spadra. The line running to Anaheim is 22 miles long; another branch swings eaſt to the valley of the Santa Ana River. The line to Wilmington and the coaſt is 21 miles in length. The Los Angeles and Independence Railway and the Santa Monica line to Los Angeles are 16 miles in length and were completed in 1875. With a terminal for trains at Santa Monica, it makes possible a close connection between rail and ſteamer. At the present another project is on foot to build a new line across the great desert to Colorado by way of San Gabriel, the Puente Hills, and on eaſt about 85 miles to San Gorgonio and the Cajon Pass. This would tap the mining region of Independence in Lugo County, and connect it with the mines of Southern Utah. Many advantages will be derived from this venture for, since the diſtance from Ogden to Los Angeles is 250 miles less than toward San Francisco, a portion of the trans-continental traffic would be diverted to Southern California.

Even now, however, the railroads are doing a good business. Indicative of their importance are the following figures of goods carried during 11 months from January 1 to December 1, 1875.

	IMPORTS	EXPORTS
Los Angeles	6,307,129 pounds	2,654,619 pounds
Wilmington	7,193,117 pounds	9,631,892 pounds
Anaheim	658,000 pounds	548,808 pounds
San Fernando	6,253,444 pounds	188,583 pounds
Spadra	12,294,160 pounds	886,560 pounds
Colton	10,792,580 pounds	455,374 pounds
Downey		136,766 pounds
El Monte		33,255 pounds
Other Stations	219,592 pounds	
Total pounds	43,718,022	14,525,857
Total tons	26,859	7,262

The total importation of lumber was 6,013,354 feet, an increase of 2,094,000 feet; of assorted wares, 15,712,082 pounds. The greatest movement of wares, 6,786,040, was toward Spadra; San Fernando received 2,070,539 pounds, and Wilmington 2,123,448 pounds.

The road running to San Francisco is not only invaluable for shipping fruit, but is also of great importance for the public at large, because it means competition between sea and rail transportation. Several stage-lines cross the country in various directions. Especially worthy of note is the fact that, since there is now rail connection with San Francisco, postal-service has ceased to Merced, the line passing along the ocean having connections with the various districts near San Francisco.

Movement of mails, as is natural in so highly developed a country, is increasing. According to the records of Postmaster H. K. W. Bent the amount of mails passing through the Los Angeles post-office in 1875 was as follows: In 1875, there arrived and were dispatched daily, 23 bags of mail, and 7 sacks of newspapers. Letters mailed weekly amounted to 10,500, while 250 pounds of newspapers were dispatched. This made a total of 270 pounds weekly. The receipts from the sale of postage-stamps was $15,428. In the

department of registered mail 3,061 letters arrived and 1,765 were sent. The total number of money-orders sent was 4,631, amounting to $109,571.32. The total number of money-orders cashed was 2,436, a total of $84,502,230. Miscellaneous articles to the amount of 2,366 were also dispatched.

CHAPTER
21

HINTS TO SETTLERS

What advantages agriculture offers to settlers in Southern California has already been indicated. Endless opportunities are constantly arising through the rapid development of new localities which are often put on the map in a few months time. There is ample room, however, for many more settlers and good land in abundance for many years yet to come since new territory is constantly being made available through the development of irrigating systems. In the Los Angeles Valley alone are over half a million acres which can be brought into a high degree of cultivation so that if 10 acres were placed at the disposal of every inhabitant that one valley could hold 50,000 farmers. Not only in fact could it receive them, it could also supply them with every desired article.

No happier paradise for the farmer can be found than Los Angeles County. Imagine a land where, for only 20 or at the most 30 days a year, it is not possible to work outdoors as contrasted with 80 to 120 such days in the eastern states. Summers need not be spent in raising products for man and beast to consume through the winter months; the farmer can devote the entire year to producing one thing after another, being kept in condition by the refreshing days of summer. In addition to the work-horses and cows which need to be fed only for a short period in the year, all cattle, as has been pointed out, live without shelter and without storage-feed the year through. This means a material saving in outlay. The farmer, furthermore, can have his house surrounded every month in the year with splendid fruit and glorious flowers.

The advantages of late frosts to the farmer have already been

noted; this is also an important item in establishing factories, making it feasible, in most instances, to use light buildings.

But not only the fruitfulness of the land where grapes, oil, nuts, and citrus fruit are readily cultivated and where a farmer can easily count on a yearly income of from $150 to $500 an acre, not only the healthful climate which is so significant and so vitally important are enticing settlers, but also the extraordinary security of life and property. The social order is exemplary, and the annals of the local courts can be safely compared with those of all the other States in the Union. None is better equipped with schools than California—an important factor for every settler who is raising a family.

Living costs are not excessive. Meat is cheap; beef is worth $.10 or $.15 a pound. Cereals are also abundant. A barrel of flour costs $6 or $7; 100 pounds of potatoes, $1; weekly board is $4 to $8, the latter in good hotels and restaurants. At the same time, however, every line of commerce and trade pays high wages. Mines are being constantly exploited where a white man can always earn any time of year as laborer $3 or $4 a day. Mechanics are greatly in demand, receiving the same wages as in San Francisco. Cabinetmakers are paid $4 and $5; bricklayers, $5; plasterers, $6; masons, $5; and blacksmiths, $4 and $5. At the same time the legal working-day is only 8 hours. How much can be earned without undue effort! Money, moreover, can be readily invested advantageously at high rates of interest, 10 per cent being the usual rate, and, at times, 12 per cent can be secured.

For settlers just arriving, the dearly-bought experiences of the pioneers are of inestimable value. For the farmer, the best times of year to arrive and become established are the summer and autumn, since no rains fall from May to November, despite the fact that the country scenically does not appear at its best advantage. However, beneath the dryness and the dust may also be seen the richness of the country since it is at this season that everything is

ripening. If land is selected at this season, there is yet time to sow seed before winter. By so doing, it is possible for a settler coming out in summer to have everything prepared for the arrival of families in November or December. This can the more easily be accomplished since buildings, houses, fences, crops, and all kinds of planting can be built by contract, a system recently organized in California. There will naturally be much hard work in the beginning; but every settler must bear this in mind, not become discouraged, work industriously, and remember that all settlers must undergo just these same experiences. Whoever believes he can establish a home without work should stay where he is. But whoever has made up his mind to endure hardship and to build up for himself a comfortable income will find more and better opportunities here than in any other country. Under pleasant conditions and with a minimum of work, it is possible in a comparatively short time to become independent far more readily than in the eastern states, or in Europe. Here as elsewhere, the prime requisites are industry, frugality, and patience. Instances may be seen on every hand where men with very limited capital were able to create with little more than their own industry a comfortable livelihood and to accumulate, within a few years, sound properties. For enterprising farmers, Los Angeles has an important future.

To come out in colonies is advisable since friends and companionship are of inestimable value during the hard years of pioneering! In this respect, however, California is extraordinary since hospitable people who are glad to welcome neighbors are found everywhere.

A mistake frequently made is to attempt to acquire too much land; 160 acres or at the outside, 200, are adequate for any one settler. The good old motto "Better little land, well-cultivated," should be put into practice. A careful farmer who cultivates 160 acres, plants 20 of them to oranges, almonds, and olives, who milks his cows, has a good vegetable garden, and cares for his har-

vest will, at the end of ten years, have a more valuable property than his neighbor who had ten times as much land but raised only grain. With small agricultural ventures less capital is required and the risk is slighter. In Californian enterprises it is advisable to keep constantly in mind the question of irrigation and not buy where water is unavailable. Its price should be also taken into consideration, especially when land is purchased in the expectation of bringing in water; even so, prices in proportion to opportunities offered are still very low. The advantages of irrigation have been already sufficiently stressed in the chapter devoted to that subject. Much government land is on the market but this as a general thing is not to be recommended since the best lands have already been selected.

When in San Francisco it is well to apply to the California Immigrants Union; the officials in charge are responsible men paid by the state who have no personal interests at stake. Whatever is purchased, it is of inestimable satisfaction to know, can be sold at a profit. Usually a buyer can realize twice what he paid since there is considerable activity in sales of land. For those who cannot afford to purchase lands outright considerable land with water can be leased, either for cash, or kind. Not only as farmers, however, does this land offer the settlers a glowing future, but also to tradesmen and industrialists as well a fertile field is available. But the man who believes he can pioneer out here in any one field is doomed to disappointment; every line of trade, from the higher to the lowest, is now represented in Los Angeles. Competitors will be found already well established who will have to be conquered by civility and industry.

Before closing this chapter, the comment should be made that California is the best state in the Union for health, wealth and happiness. Cognizant of these advantages, in 1875 no less than 60,000 immigrants entered California. In Los Angeles alone within the past 6 years 8,000 settlers have come in annually.

CHAPTER
22

SOME STATISTICS ON WEALTH IN THE COUNTY

In 1868, the total property value according to the tax-collectors was $3,764,045; by 1874, it had climbed to $12,332,522; of this amount land and improvements amounted to $8,004,098 and chattels to $4,319,424. This, in round numbers, was an increase in 8 years of 300 per cent. In 1875, it had grown to $15,152,367; of that $10,324,191 was in fixed assets, that is, real estate, in addition to city properties and community holdings, while $4,861,806 was in liquid assets; improvements on the same amounted to $1,042,-295; city and community property had a valuation of $3,033,256, improvements on same, $1,357,179, making a total of $4,764,176.

The present tax-rate for the state and county is $1.98 outside and $1.83 within the city; the city tax is $1.10. Up to the present time, the large properties are taxed too dearly and the small too lightly. There are 20 tax-payers in the county whose property has increased from $72,000 to $713,000. The 6 largest landowners are the Los Angeles Land Company, which owns 101,000 acres of land; Irvine Flint and Co., with 77,000; Pioche and Bayerque, 69,000; E. de Celis, 56,000; Beals and Baker, 53,000; James Lick, 51,000. Most of these date back to the old Mexican land grants.

CHAPTER

23

EARLY HISTORY

The founding of Los Angeles dates back to the second half of the last century. On August 26, 1781, Luis Felipe de Neve, governor of California, issued an edict from Mission San Gabriel, which had already been founded in 1771, for the establishment of a new settlement—*El Pueblo de la Reina de Los Angeles*.[1] Especial care was taken to find a sightly, well-drained location. On September 4, the settlement was founded in accordance with the laws governing Spanish colonization and organization of pueblos.[2] Most of the first settlers were ex-soldiers from Mission San Gabriel who, although relieved from service, still drew salaries and rations. The settlers consisted of 12 families, or 46 persons, of whom 23 were children. Of the 12 families, 2 were Spanish, 2 mulatto, 2 negro, 4 Indian, 1 Chinese, and 1 half-breed.

Of the women, 6 were mulattoes and 5 Indians. One of the settlers was a widow with two children. Among the others, eight had progeny. The adults came from Lower California and were born, with the exception of the two Spaniards and the Chinaman, in Sinaloa and Sonora. The names of these settlers were: Lara, Navarro, Rosas, Mesa, Villavicencia, Vanegas, Rosas, Rodriguez, Camero, Quintero, Moreno, and Rodriguez.[3]

Each family received from the royal treasury two oxen, two mules, two stallions, two sheep, two cows, a calf, a donkey, a pig, and what tools were essential for farming. For these articles, including the cattle, a price was established by the government to every settler in the community and the cost was to be deducted in small installments from their salaries.

In laying out the district, a parallelogram 100x75 *varas* was selected whose lines, instead of pointing toward the four main points of the compass, were set at adjacent angles.[4] On three sides of this plaza were 12 main house-sites, each 20x40 *varas,* together with two plots of a different size. One-half of the parallelogram was reserved, while the other was used for a guard-house for the royal officers, and a dumping-ground. This was located northeast of the present mission church.

At the same time, 30 fields were staked out measuring 100x300 *varas;* these were separated by streets 3 *varas* wide. These fields lay between the Los Angeles River, which was then known as the *Porciúncula,* and an irrigation canal that carried water to the settlement and on over to the east side. The land stretching between the river and the canal measured over 120 *varas.* After the settlement was established, the river cut a new channel on the west side, at the same time washing away the fields or covering them with sand. In 1825, the river again left its course and formed a third channel between the two earlier ones.

For the first fifty years, the population increased very gradually, being augmented only by a few pioneers and soldiers who had been dismissed from service and become settlers. In 1836, Los Angeles for the first time was raised to the rank of a city, and, by an act of the Mexican Congress, was made capital of Alta California.[5] During his short career as governor, Don Carlos Carrillo made it the seat of civil government. After the expulsion of Micheltorena it again became the seat of government under Don Pio Pico from January, 1844, to August, 1846.[6] At this time the city fell into the hands of the United States army after two sharply contested struggles against the Mexicans, one on the banks of the San Gabriel River, the other on the mesa opposite the city where General Kearney's army joined forces with marines sent up from port under Commander Stockton.[7] These, massing at the river, entered the city where they were reinforced by General Fremont from

Santa Barbara. Fortifications were hastily erected on the hill northwest of the city, but despite this fact the Americans were soon compelled by superior forces to abandon their posts and, pursued by the enemy, to withdraw to San Pedro.

Shortly after this event, however, war with Mexico ceased and Los Angeles was given over to the Americans.[8] In view of these changed conditions there arose, as can be readily imagined, against the Americans on the part of the Californians a feeling of hostility. This, nevertheless, gradually disappeared.

By the end of the Mexican war Los Angeles had a population of 2,000. Most of the houses at that time were of adobe, comparatively few were of wood, and none were of brick. The streets were crooked and poorly paved. Not until 1853 did the Americans as well as the Europeans begin to feel established and settled, and real progress set in. The first city plan was made at this time by Pacificus Ord; this is still the leading map in the city.

The gold-rush lured so many immigrants to Northern California that Southern California's excellent climate and fertile soil failed for a time to receive the attention they merited. Not until 1867-1868 did the city begin to grow rapidly and show decided progress in the erection of handsome houses. Fine buildings and substantial brick shops, hotels, schools, banks, factories sprang up, at this time, as if by magic. But it is only within recent years that this growth has been so stupendous. From April to September, 1874, estimates show that about $300,000 was expended for business buildings and residences. Even more building was done in 1875; estimates for that year place the building in and around Los Angeles at a total valuation of $95,000. The increase is so rapid that a house is usually rented before the building is started. Naturally, with such an increase in building activity the population has shown a corresponding increase. This, which in 1870 was 5,728, soon grew to 13,000, and is now 16,000.

IN THE UPPER QUARTER OF LOS ANGELES

CHAPTER

24

LOS ANGELES

BEFORE continuing a discussion of Los Angeles, a brief sketch will be given of the fertile Los Angeles Valley. This valley which is 20 miles wide and 50 miles long, runs from northwest to southeast. It is bounded on the northeast by foothills that separate it from the San Fernando and El Monte Valleys, on the southwest by the ocean, and on the northwest by the ocean and foothills. It contains 1,000 square miles, or 640,000 acres. Of this, 160,000 acres are pasture-lands, an equal amount is land suitable for vineyards and semi-tropical fruits, while 320,000 acres are excellent for raising grain. At least 500,000 acres, according to estimates, can be watered. Since it has a gentle slope of 10 feet a mile toward the south, it is admirably adapted to irrigation both by ditches and artesian wells. However, on both banks of the Los Angeles River for some distance back the soil is productive without irrigation. Since the surface is raised only 7 or 8 feet above the river-bed the trees penetrate so deeply through the moist, loose, sandy soil that they find water. Generally speaking, the soil in the Los Angeles Valley is extremely rich being for the most part a fine, sandy clay. There are, indeed, stretches with too much alkali, but this can be overcome by planting beets and other plants that consume considerable potash.

The valley of Los Angeles can easily hold a million inhabitants, although it now supports less than 20,000. Yet the many advantages offered by this newly-discovered region have already been recognized, a fact that accounts for the astounding growth of the city in recent years. Situated as it is in the heart of a fertile agricul-

tural region in close proximity to the only two passes that cut through the mountains into the back-country thus connecting it with the coast, and only a short distance from the ocean where Wilmington affords an excellent harbor, Los Angeles is destined to become the second most important city in the State. At its back door is the remarkably rich mining district of Arizona and New Mexico, a district that merely awaits a renewal of interest in mining. Every year the railroad moves nearer these districts whose trade will naturally flow into Los Angeles. The importance to this city of the southern trans-continental railway has already been indicated.

Rising at the foot of gently-sloping hills that tower 60 feet or more above it, Los Angeles spreads out over the southeastern end of the valley, rising partly on the foothills, and partly on the plains reaching southward and extending on over to the west bank of the Los Angeles River—the source of so much of its wealth—to where it breaks through a row of hills 20 miles north of San Pedro. Los Angeles lies in the midst of a sunny garden 7 miles long and 8 in width, a site which is unequalled throughout the United States. In appearance more like a series of gardens and country-places than a compact mass of houses, it covers an area of 6 square miles. For purely local reasons, the city, instead of being a consumer is, oddly enough, a producer. The yearly production from land within the city limits is, in fact, so great that it will practically support the entire population.

Viewed from a distance, Los Angeles is entrancing from every angle. Perhaps the best view, however, is that from Mr. Perry's house with its charming garden in the foreground, or from the west end, with the magnificent Sierra looming up in the background.[1] In appearance, this city differs materially from other American cities since two elements, the American and the Mexican, are conspicuous. Of these, the latter predominates. The streets are unpaved and, in summer, very dusty. There are three main

ſtreets that run nearly parallel through the city. The two upper ſtreets, Main and Spring ſtreets, are the moſt important. These are joined on the weſt by a third called San Pedro Street. The city centers around the plaza; from here it ſtretches out, following the four main points of the compass, in every direction for what, in the language of the Californians, is known as a Mexican league. This comment, nevertheleſs, ſhould not be taken too literally; it is rather, as obſerved above, a continuous chain of villas and gardens.

In the heart of the city are many board sidewalks which are kept in good condition. Others, however, are made merely of earth packed down, with curbs of wood. This cuſtom of holding in dirt walks by planks is in common usage, in fact even ſteps and terraces are built in this manner on the hillsides. In front of many of the houses a diagonal ſection has been paved. Bordering the sidewalks are many peppers,—a tree highly favored for its delicate appearance,—ſlender eucalypti, caſtor-bean plants, and frequently the ſtately, full, weeping-willow. Many trees along the ſtreet are boxed with boards. On the side of the ſtreet neareſt the gardens adobe walls are frequently seen enclosing planting; there are also in evidence willow hedges, trickling *zanjas,* and century plants.

Among the newer houses appear many ſtately buildings built of brick, wood, or Mexican adobe. The latter are rapidly disappearing, however, being seen here and there in and near San Pedro Street, the Chinese quarter where moſt of the oldeſt houses are located, and especially in Sonoratown where many, badly in need of repairs, recall days gone by. Well up on Main Street, however, may ſtill be seen the house of Doña Arcadia de Baker, a Californian lady living in Los Angeles who is the owner of Laguna.[2]

Many of the houses are quite comfortable although moſt of them have been left in an unfiniſhed ſtate. Frequently ivy is trained over the corners, its dark green foliage contraſting in a pleaſing manner with the dark red buildings. The majority of the houses on Main Street have wooden porches supported by rough timbers.

Occasionally flag-poles are erected,—a popular American custom. Among the newer wooden houses many are built in duplicate and stand close together; this is often seen in England and America. Several houses have simple vines, that form an airy veil, trained over the porches. Frequently these verandas occupy one entire corner of the house and cover a quarter of the lot.

Many of the houses stand back from the street, and are not only surrounded by small gardens but also have gardens out in front. These are very nicely laid out and, thanks to adequate piping, are so thoroughly watered that even in midsummer they have patches of green turf. In many instances the paths are stone-paved and the grass bordered with stone. In certain houses an outside stairway leads directly from the gardens to the upper floor.

Numerous pepper trees are seen in these gardens, as well as the popular eucalyptus. Frequently, too, are seen formal plantings of tall cypresses, together with almond and orange trees. The *Araucaria excelsa* and the *Ficus elastica* flourish everywhere.[3] Houses, on the street-side, are usually enclosed with fences. Holloday's Patent Mills often stand near the houses, especially those on the outskirts that derive their water supply from springs.

Adjoining the houses of the more prosperous citizens and even close to the finest dwellings are often seen low wooden houses made of overlapping planks such as Americans use for laying roofs, and which have only one door, or a door and a few windows.

The city is lighted by gas. Opposite the Pico House is a small gas-plant that supplies the lamps; at the end of Aliso Street where Central Street branches off there is also a gas-plant. The plaza, on which the Catholic mission church and the Pico House face, forms the beginning of Main Street. At the plaza is a circular garden with a high central fountain, enclosed within an iron railing. Main Street is the most animated of the three principal streets of Los Angeles and has the finest buildings. On it, too, stands the City Hall, an ugly building that has 11 windows on one façade

and 3 on the other. Six steps lead up to this building which is surmounted, moreover, by a noisy clock-tower. Nearby, in addition to the imposing buildings of the Commercial Bank and Catholic cathedral, are some interesting stores where canned goods and enticing displays of Californian fruits—melons, watermelons, and other fine fruits of this remarkable country—are in evidence. Farther down on Main Street the houses grow poorer, most of them being small wooden structures with tiny and often pleasant gardens. There are many vacant lots, and some attractive houses. Spring Street, the second principal street of Los Angeles, opens on the right into Main Street. Here, on the upper side, is Turner Hall bearing the inscription "Welcome"; between this and the corner stands another building. From this point the street runs directly west through groves of olives, walnuts, and oranges. Into Main Street, an important street, Fourth Street, opens. Down Fourth Street runs the tramway that connects with the line on Main Street.

The third and longest street which is south of Main Street also begins near the plaza, in the vicinity of *Calle de Los Negros* with its dilapidated old houses, and is called *Calle de San Pedro*. It is dirtier and dustier than either of the others. Fairly broad where it begins, it gradually becomes narrower. On the right-hand side is a large shop built of bricks. Several of its houses have porches, some of them being quite extensive, with upper balconies. The tram runs past these and on down to the Santa Monica Station of the Los Angeles and Independence Railway, an elaborate renaissance structure with two towers, that resembles a church far more than a railroad. It contrasts sharply with the other station in Los Angeles—that of the Southern Pacific Railway.[4] The lower end of this street passes primarily through gardens; between it and Main Street are some splendid orange groves.

Behind the City of Los Angeles stretches, as remarked above, a row of hills. On these, houses are already beginning to rise. These

hills are composed of an upper layer of conglomerates above with, below, ſtrata of ſtone, made up of marl mixed with sand and mica-slate, together with horizontal banks of gravel mixed with decomposed granite. From these banks crushed-ſtone is extracted for the ſtreets. Over on these hills, are several cemeteries—those on the farthest hills being the Catholic—and the city burial-ground where the Jews and Chinese also have their graveyards.

A new ſtreet leads paſt the school-house to the summit of the hills, where, on the right, are four comparatively new houses. The hill that rises directly at the rear of the plaza has the form of a cupola, and is crowned by several houses. Its summit commands a magnificent view of Sonoratown and the Sierra. Behind it is a small valley, then a second spur of hills and another valley. Here the "cupolas" of Los Angeles, bending toward the eaſt and weſt disappear from ſight. A miniature valley extending as far as the eye can see, known as *La Cañada de Antonio Ignacio,* runs from eaſt to weſt behind the low hills extending out from Los Angeles. From here the hills rise again for a third time, being crowned again by several houses. Back of this is a valley separating the chain of troughs through which, over a small wooden bridge, run water pipes. Below is a water-reſervoir, or kind of pond. On the far ſide of the tiny valley rises a ſemi-circle of gently-ſloping hills, heavily eroded. These hills form an extenſive ridge. Nearby is Charity Street, with its neat little villas ſurrounded by eucalypti, that commands a ſplendid view.[5] A ſteep, unfiniſhed ſtreet leads from this ridge down to the vicinity of the Catholic Church on Main Street; the lower ſlope forms an extenſion of Hill Street. Tiny, iſolated dwellings that can ſcarcely be called houſes, riſe here and there. Many of these have freſh green graſs plots which have water piped in from ſprings placed on the ſummit of the hill, and which forces water up from a lower reſervoir into one holding a million gallons. Toward the end of the range of hills where century plants riſe ſo majeſtically is a ſmall crooked gully

running down toward the southwest which flattens out as it joins a small brook. From these heights there unfolds below a magnificent panorama of the middle and western section of Los Angeles, with its stately buildings, luxuriant fruit orchards and, winding off to the right as far as the eye can reach, the Los Angeles River. On the left is a border of gentle hills that gradually disappear in the distance, merging finally into the plains. Far off toward Santa Monica glimpses of the ocean may be had in three directions, over Wilmington, the Pacific Salt Works and behind Ballona.[6] On clear days the distant island of Catalina may be seen silhouetted against the horizon. On the western tip of this row of hills lies an orange grove, aptly termed Bellview Terrace, which belongs to Mr. Prudent Beaudry, Mayor of Los Angeles.[7] This, which has an area of six and a half acres and is surrounded with eucalypti, has 400 strong, young orange trees, 125 limes and lemons, many other fruit trees, and several vineyards. For fertility of soil and magnificence of view it is a perfect jewel. Upon descending from Bellview Terrace, City Gardens—a small public garden now being laid out—enclosed with a picket fence is reached.[8]

Los Angeles is the seat of the county government and now has, as already said, a population of 16,000. These are about equally divided between Americans, Europeans, and Californians. Americans and Europeans, however, have given the greatest impetus to the present development. The former own the most houses and land in the city; the latter control the bulk of the commerce. In this latter branch the Irish and Germans have also been notably successful. The native Californians, on the other hand, have gone in largely for ranching, sheep-herding, and the raising of vineyards and orange trees. Despite the cosmopolitan nature of the inhabitants—on the streets are heard spoken English, French, Spanish, German, and Italian—the community spirit predominates, being strengthened by a mutual interest in the city's advancement. Largely for this reason, despite the many improve-

ments that have been made, the city is free from debt. This contrasts noticeably with conditions in Europe, especially in Austria, where, without apparent reasons, various nationalities waste considerable time in futile hostilities that result in nothing but endless friction. Out here, on the contrary, independence and the progressiveness of the citizens unite all factions in constructive activities.

Even now there are any number of wealthy men; ex-Governor John G. Downey, an Irishman by birth, is considered to possess the greatest wealth.[9]

Owing to the mixed population in Los Angeles, there are naturally many denominations. These, however, have so much mutual tolerance that they work with the utmost energy to build churches side by side. Of these, the Catholics, as already said, have the strongest following. In addition to chapels and educational institutions, they have erected two public churches.

What is known as the Los Angeles Mission was established shortly after the pueblo was founded, for the benefit of the Spanish soldiers in the new settlement.[10] This church is still standing near the southern end of the city at the plaza. Its façade is bleak and unattractive; within is a flat ceiling supported on either side by four columns. Directly in front of the altar is an ornamental arch bearing the inscription *Reyna de Los Angeles ruega por nosotros*. On the inner side of the façade is the inscription, *Los Fieles de esta Parroquia a la Reyna de los Angeles 1861*. Nearby stands the parish house surrounded by a small garden. Also facing on the plaza is a wooden house with a double veranda surmounted by a cross. Formerly a public school, it is now a private residence. As a result of the rapid increase in population, there has also been built on Main Street a splendid cathedral. This was recently completed in 1876 at a cost of $80,000.[11] It is the result, largely, of the efforts of the zealous Bishop of Los Angeles, Don Tadeo Amat, who like so many Catholic priests in this country, is from Catalonia.

This church is said, furthermore, to be practically copied after one in Catalonia. It is a stately brick building with three naves. Architecturally, it suggests the renaissance. The façade, which is built with a gable, has a statue on either side and the letters D.O.M. *(Deo optimo maximo)* in the center. Each side of the two sections has a double railing across the front surmounted by statues representing the four prophets. In the center is a rose with a niche on either side. On the frieze is inserted in gold lettering the dedication: *"Dicata sub invocatione Sanctæ Vibianæ Virginis et Martyris A. D. 1876."* Three doors, separated by ornamental pilasters, lead into the airy interior. The main floor is surmounted by a gable, the two side portals by broken arches. At the sides, the church has eight supporting columns; at the rear is an octagonal-shaped tower, surmounted by a belfry.

The St. Athanasius Episcopal Church is located at the corner of Temple and New High (Hill) Streets. It has a congregation of 30 members.

The Methodist Church on Fourth Street is a large wooden, Gothic edifice and has what is a characteristically church-like tower on the right that is surmounted by a pointed helmet. This church numbers 192 members and has a Sunday School attendance of 190 more.

The Methodist Church South, which was organized about three years ago with only 10 members, now has a congregation of 65. These members have built a good church and support a Sunday School.

The Methodist Negroes Church is at the summit of the hill near Charity Street.

The Presbyterian Church is on the right hand side of Hill Street near the Episcopal Church, and, though organized only two years ago with 15 members, now has 143 in its congregation. Their first meetings were held in Good Templars Hall on Main Street. In their Sabbath School are over 100 children.

The Congregational Church is on New High (Hill) Street and has 65 members; the Sunday School has an attendance of 90 children.

On Spring Street is the German Evangelist Church which is also used by the Baptists. This was organized in Los Angeles in 1874 by four members. In 1875 the pastor resigned and since that time it has been without a minister. The church now has 30 members and a Sunday School of 40 children.

In Los Angeles there is also a Christian sect. This congregation, as it is only nine months old, has no church as yet in Los Angeles, having only 30 members. To offset this, at Downey City this group has a church of 114 members which has many supporters along the Santa Ana River. They are planning, furthermore, to establish a church at Orange.

Lastly, there is the B'nai B'rith, with some 60 members.

On the right hand side of Fourth Street is the Jewish Church, a brick building with a hideous Gothic façade. The service begins on Sabbath, Friday evening, and ends Saturday evening. Sunday School is held Sunday morning; every Monday, Tuesday, and Thursday the children receive lessons in Hebrew.

Several fraternal organizations are established in Los Angeles: The Odd Fellows lodge, the strongest secular organization in California; two Masonic lodges, besides a chapter and a council of higher degree; two Redmen's clubs; one of Knights of Pythias; one each of Good Templars, Sons of Temperance, and Champion of the Red Cross; a Jewish, a French, and an Irish benevolent society; a Turner-Verein; a French hospital; and a home under the auspices of the Sisters of Charity.

Private instruction may be had at Lawler Institute, a Catholic College for boys, and at a girls' school under the direction of the Sisters. The Catholic College, St. Vincent's, is situated in the west end of town in a pleasant garden. It is a large, ugly building with 7 windows and a gable in front surmounted by a cross and ball.

Through the building runs a central corridor. On the second floor are the dormitories. The college also contains a library and small chapel. From a small terrace an excellent view may be had over the city of Los Angeles. Out in the garden is a beautiful vine-covered pergola where the boys gather. In front of the house stands a small fountain. This institution has 3 classes with an enrollment, last year, of some 70 students. Of these, the majority are Catholics.

Similar in architecture and general arrangement is the Sisters' School which is out in the east end of the city.

Of all the public schools, the high school is unquestionably one of the outstanding buildings in the city.[12] Because of its favorable situation, it is visible from afar, standing out conspicuously above the orchards and city. This imposing building, which cost $39,000, is a two-story wooden structure with 10 windows both front and rear, some projecting additions, and a clock-tower. On either side of the entrance flights of steps rise. The building itself contains cloakrooms for the pupils and 8 large, airy schoolrooms equipped with substantial benches manufactured in Illinois. Slate blackboards used for writing and drawing are hung on the walls; these are covered with selected proverbs. The school has four grades, the two highest being upstairs. Out in front is a flagpole and wooden steps leading down the steep hill into the city.

The Los Angeles Public Library is in the Downey Block and belongs to a company that was organized in 1872. First opened in 1873, it now numbers about 400 members. Two thousand volumes have already been placed on its shelves while a full supply of the best magazines, reviews, illustrated journals, and eastern and foreign newspapers and publications is to be found on its tables. The membership fee is $2.50; the dues are $.50 a month, or $5 a year. Every member may take out 2 volumes at the same time. Strangers are permitted to use the rooms; however, they cannot take out books without becoming members. The rooms are open every afternoon, including Sundays, and every evening, from seven to

ten. A chess and social room is maintained in conjunction with the library. To encourage the development of agriculture a permanent exhibition hall is to be opened shortly. Here the semi-tropical products of the country will be exhibited for the benefit of strangers with the idea of stimulating their production on the part of the local residents.

Several newspapers are published here in Los Angeles. The most widely circulated of all are the daily and weekly *Herald,* the *Star,* and the *Express.* The first is a morning paper; the latter are evening publications. Both put out extra editions. The *Schoolmaster,* a weekly, is the organ of the public schools of the county. The *Mirror* is published once a week and is distributed gratuitously by the Mirror Office. The *New Italy,* a monthly, is published in Los Angeles by the Immigration and Co-operative Association. This sheet contains many notices about the country as a whole, especially the outlying estates in whose interests it is published. The *Southern California Post,* a weekly, has a good circulation, especially among the German population in all parts of the city and county. *The Chronicle,* published semi-weekly, is widely circulated in California, Arizona, New Mexico, the Central South American countries, and even in Spain.

Comfortable accommodations for strangers have been amply provided in Los Angeles. There are several hotels which are generally filled to capacity during the winter season by travellers who come out to enjoy the mild climate of Southern California.

The best of these is the Pico House, which, like all the four leading hotels, is down on Main Street.[13] This is an imposing building of two stories with 14 windows on its facade. Built of extra-heavy construction, it is supposed to be the most safe in the entire city in case of earthquakes. It was built under the supervision of its present proprietor, Señor Cuyas, an amiable and intelligent Catalonian. The building, which was begun in 1870, cost $48,000 and was furnished at an expenditure of $34,000 more. It has 82 rooms, 21

of them suites with baths, and is lighted by gas. The handsome parlor is the rendezvous for many of the élite of the city.

Next in importance to the Pico House is the Clarendon Hotel. This has 120 rooms—25 are elaborate suites with bath—and is illuminated with gas. The Lafayette Hotel has 100 rooms and baths. The United States Hotel has 74 rooms, costing $40,000 to build and $20,000 to furnish.[14] In addition, there are several hotels of inferior order.

One particular section of Los Angeles is known as Sonora, so-called because most of its inhabitants were originally from Sonora in Old Mexico. This, which is the Californian quarter of Los Angeles, extends north from the Catholic Mission Church on out through the valley. Behind Sonora rise low hills thick with *nopale*. The city is traversed in this quarter by four main streets. Of these, one is very broad. All in all, however, this region has a shabby appearance, even though it has several good adobe houses with flat asphalt roofs, a few that are roofed with tile, and several with shingle roofs.

Sonoratown has two tramways. One of these runs down the center of the broadest street toward the Catholic cemetery; the other after crossing the wide bed of the Los Angeles River via a wooden bridge, runs over into East Los Angeles. From the opposite bank of the river, where castor-beans grow rankly, the view over the Los Angeles Valley with its green alder-bushes is magnificent.

Here, high up on the gently rolling ground, are scattered the houses that comprise East Los Angeles. This is a comparatively new part of the city, but it will soon develop into one of its finest sections. Subdivided by ex-Governor Downey, Dr. Griffin, and his nephew, Hancock Johnston, elaborate plans have been made for its development; 170 acres were set aside from Dr. Griffin's 2,000-acre ranch for the creation of East Los Angeles.[15] In this tract, lots were sold only on condition the purchaser erected a fence

and set out a definite number of trees. Eight-inch pipes connect this section of the city with the Los Angeles water-system. On Downey Avenue, which is 100 feet wide, Dr. Griffin has reserved 30 acres for his home near that of Mr. Johnston; it stands in an attractive park filled with walnut, Italian chestnut, pecan, and almond trees, many varieties of grapes, and also orange, lemon, lime, olive, and pomegranate trees. The park is watered by two mills which supply three reservoirs.

The streets of Los Angeles fairly teem with activity. Because of the mixed population, they are always colorful and interesting. Street-cars cross the principal streets and travel according to the American custom, down to the terminus, returning in the opposite direction. On the streets numerous vehicles and carriages are seen—four-seated carriages with heavy springs, light American vehicles, and frequently, small carriages driven by Chinese. In Los Angeles, the Americans usually drive in place of riding horseback. Many riders, however, are in evidence, for the Spaniards, Frenchmen, and Italians prefer riding to driving. Spanish boys are often seen galloping gaily. Young Californians, brown as Arabs, also ride by, sometimes stopping their horses near the fruit-stores and then galloping rapidly away, followed by their bulldogs, up the dusty streets.

A gay crowd of men and animals is constantly coming and going on the streets. Innumerable bronze-colored half-breeds from the Mexican province of Sonora wearing plug hats on their dusky heads, tanned Scotchmen in straw helmets, distinguished Spaniards in riding clothes, and animated, laughing girls in large cotton capes and broad straw hats pass by. Upon passing on down the streets strange sights are constantly encountered: barber shops where customers stretch out nonchalantly; elevated seats where men lean back smoking cigarettes while their shoes are being polished; Chinese laundries bearing strange inscriptions advertising their activities; political notices posted from one end of the street

SONORA AND THE MOUNTAIN RANGES

to the other; vendors driving carts and selling fish. The streets are at the peak of their activity in the evenings, especially at the entrance to the opera-house where there is so much pushing and shouting going on that it is difficult to get through. In highly-lighted bars groups of ranchers drink gaily in an effort to forget the trials and tribulations of the past week.

In summer, the dust is distinctly disagreeable; however, in the morning the streets are frequently watered from sprinkling-carts. The dust on the sidewalks is settled by using a hose attached to water connections inside the house.

In the evenings, the Californians often congregate on horseback just beyond Sonoratown for contests. In one of these they ride under an arch and try to catch a ring on a lance. This game which is called *Las Argollas* is a relic of Spanish times when the game was exceedingly popular.

Only two public gardens, in addition to the small city gardens previously mentioned, exist in the city. One of these, which is at the terminus of the Spring Street car-line, is called Washington Garden.[16] This garden, which once belonged to O. V. Waldron, contains 35 acres. It has many fruit trees, a large vineyard trained over a wooden trellis, and, in the center, an octagonal-shaped covered platform for music and dancing. There are also several rows of fine orange, fig, and olive trees, as well as pomegranates. In addition to these is a large dance-hall, an airy building decorated with 7 flat arches which has seats on either side. This is used for many kinds of entertainments. Back of this hall is a young orange grove and a small menagerie where a lioness, a bear, a leopard, an eagle, and several monkeys are exhibited. Nearby is a small house surrounded by a veranda. This garden is extremely popular with the public at large and is the principal place of amusement.

Out beyond in the same general direction (this will soon be connected by tramway) after passing several windmills, a second garden, called the race-track, or Agricultural Park, is located.[17]

This is where the races are held. The park is a mile in circumference and is completely enclosed by a board fence. Within, in a setting of eucalyptus trees, is an inn and bleachers for spectators.

In conclusion several of the most important properties in Los Angeles will be described. On San Pedro Street is the orchard of Mr. Wolfskill; this comprises 130 acres and has both young and old orange trees, nurseries, and two acres of thirty-year walnut trees.[18] On the opposite side of the same street is Dr. Shaw's Los Angeles nursery.[19] This has been planted out in oranges that were raised from seed brought up from Nicaragua and later transplanted into his garden. Next come the orchards and nurseries of G.W. Childs, Esq., one of the early settlers who came out twenty-three years ago, and who has 50 acres on the south side of Main Street. The number of trees sold by him yearly, mainly oranges, lemons, and limes, amounts to $20,000. He also raises excellent Italian chestnuts, a tree that grows splendidly and bears many large nuts and is admirably suited to local conditions. On the north side of Main Street opposite this fruit garden is a dwelling surrounded by a 5-acre park, which is attractively planted and in a flourishing state, owing to the ample supply of water available. Here nectarines, apples, pears, and grapes indigenous to Southern France are raised. Further on down Main Street lives Captain Thom.[20] Diagonally across the street from him are Colonel J. G. Howard's gardens. These are both ornamental places.

On the west side of the street are Elijah H. Workman's 7 acres —a property that has both a pleasant view and a fine assortment of productive fruit trees. Next comes George Dalton's superb vineyard, a vineyard that produces annually from 3,000 to 8,000 gallons of wine. On his grounds are raised many fine walnuts. For purposes of irrigation a mill has been erected. Not far beyond lies the Frohling garden, with rows of flourishing orange trees—and an extensive vineyard surrounded by a white-washed board fence.

On west from here is Rubio's large garden and nursery; this has

20,000 young orange and citrus trees, including blood-oranges, largely imported from Italy. He also has an extensive vineyard where grapes both for the table and for wine-making are raised.

On upper Aliso Street is T. Jefferson White's "Casalinda," a fine fruit garden filled with flourishing nut trees and two large weeping-willows. Near Mr. White's grounds are 12 acres belonging to J. D. Woodworth, who paid $1,000 an acre for his land only a short time ago. He has a magnificent orchard of oranges and lemons as well as the oldest vineyards in the city of Los Angeles. Among his vines are 2,000 ninety years old; from each of these vines he gathers 70 pounds of grapes.

Mention should also be made of the young orange trees of ex-Governor Downey, and the new grove of Beaudry—a circular grove in the hills back of Sonoratown, surrounded by a hedge of eucalypti—who has also set out several groves of eucalypti. This property has a windmill and large containers for storing water. Not far away stand the two large city reservoirs. Beyond are Colonel Norvan C. Jones's "Inverness" of 48 acres, which is bounded on three sides by Kohler, Wolfskill, and Bexas Streets. On Los Nietos Street is a station; the city stretches out only to the foot of this new quarter.

Dr. Matthew Keller's garden of 75 acres on Alameda Street also merits mention. Keller, who was one of the early settlers, has done much for the grape industry, which he has developed on a large scale. Among wines made by him are the following: claret, port, white wine, madeira, sherry, and angelica. To prepare them he has purchased a complete equipment of presses, distilleries, and miscellaneous equipment. His wines are exported in large quantities and his products have an enviable reputation on the market. He also raises cotton and tobacco.

CHAPTER

25

A DRIVE ALONG THE LOS ANGELES RIVER

Memories of the past, of the early days of the Indians and Californians, are vividly recalled by driving along the broad, almost waterless bed of the Los Angeles River through country that is still virgin, uninhabited, and where the silence of Nature is unbroken. Even the names of this river's tributaries hark back to the remote past: *El Alamo,* the *Pacoima,* the *Tuhunga, Los Verdugos,* and, lastly, on the left, the *Arroyo Seco.* The latter, although called the Dry Brook, presents the gravest danger, because of its floods, to Los Angeles. This, however, is somewhat protected by a stone hill, *La Toma* (so-called from the waters that drain off and from whose sheer sides slabs of stone are extracted to be utilized in the city).[1] The most serious flood in the Arroyo Seco occurred in 1825.

Not only the rivers but also the mountains bear fantastic Californian names. The high chain stretching to the Arroyo Seco is called *La Cordillera de los Verdugos.*[2] It continues on toward the valley and to *La Calera* where chalk is mined.[3] Toward the north are seen in succession the *Tuhunga, Pacoima, Las Palomas, El Alomar,* and the *San Francisquito* ranges.[4] Southward, in the opposite direction, is the *Cordillera de los Verdugos,* followed by the *San Gabriel, Santa Anita, Azusa, San Dimas, San Antonio,* and *Cucamonga,* and lastly, the *Cañon de los Negros* and *San Bernardino* ranges.[5] And while the sight of these ranges conjures up memories of the life of the Indians and the days of the Franciscan fathers, the hissing train that passes over a wooden bridge and

runs out to San Fernando dissipates these reveries. Upon leaving the *Arroyo Seco* on the right, the river-bed disappears behind a range of hills that separate it from the main valley. On the left, a wooded, gently sloping hill comes into view; this marks the beginning of *Rancho de los Verdugos.* To the right of the Los Angeles River, on whose banks many graceful willows attain an extraordinary height, rises a striking group of mountains, *El Potrero de los Felizes,* topped by a peak called *Portesuelo de Cahuenga.*[6] Directly opposite is a place famous for its tragic story connected with the early days in California; this now bears the name, *El Muerte de Pedro Feliz,* after a man who was murdered in 1837 by his wife and her lover under tragic circumstances. The wife, who was riding horseback ahead of her husband according to local custom, suddenly seized his feet, pulling him off his horse. By dragging him behind her she gave her lover, Don Manuel Raquena, an opportunity to follow and kill the unfortunate Don Pedro with a stone. The thick evergreen oaks covering the adjacent hills may have aided, perhaps, in concealing this scene of murder. Even now when the bright sun smiles down on the wooded slope, this tragic tale is recalled only with horror.

The country studded with alders on the flat banks of the river is called *La Talaya.*[7] Further on up the Los Angeles Valley appears the *Potrero de los Felizes Los Pescaditos,* where, at one time, brook trout were found in large numbers.[8] In front, stretching out like a great curtain, is the *Cordillera Tuhunga,* crowned by the stately Sierra Madre. Continuing on to the right the way leads to Portesuelo, with its cornfields and scattered houses, then past the *Cañada de Francisco María,* so-called from a treacherous Indian who lived down in a gully and was greatly feared by his neighbors.[9] These unpleasant memories are soon dispelled, however, by visioning what appears a veritable paradise on earth—a grove of olives and assorted fruit trees, particularly peaches, pears, and apples, as well as a sunny vineyard. The water flowing through these gar-

dens and which is used for irrigation comes down from the *Cañada de los Verdugos.* Julio Verdugo was the creator of these charming gardens.

Upon our arrival we were greeted by the inmates with the warmeſt hospitality. A child on horseback—Californians are trained to ride from infancy—brought us a chair while a small boy without reins or saddle galloped by on a sorrel horse. After we were seated together with these brown, half-Indian faces under a pear tree heavy with fruit, a man brought out two knives and served us splendid watermelons. These were genuinely refreshing on a hot day. The frank hospitality with which this was offered put us quite at our ease and left the impression that, under these bronze-colored countenances, Spanish blood surged. After describing what fine products were raised in their gardens, and how they were marketed in Los Angeles—they also raise apples to dry —they spoke wiſtfully of life in the paſt and of the days when there was great freedom. They live quite simply and have only three small wooden houses.

Having left this delightful spot, a valley was reached where directly ahead rose the myſterious *Piedra Gorda,* the goal of our journey.[10] At the right is the *Ciénega del Garvanza,* a small green swamp with clumps of bunch-grass and at the bottom, *Sacate de Matico,* which never dries out.[11] From here we emerged on a plain where enormous herds of sheep, guarded by ſtrong, fat, shaggy dogs, paſtured. Nearby is the entrance into the Canyon of *Piedra Gorda,* a wilderness of luxuriant vegetation that forms an almoſt impenetrable thicket, often the haunt of wild beaſts. The *Piedra Gorda,* towering above, is an imposing rock of granite conglomerates on one side with exposed parallel ſtrata having two sharply defined hollows in which swallows have built their neſts. It was also used at one time by the Indians as a natural bulwark, a rock fortress. Since, from this point, a fine view off across the horizon as far as Los Angeles may be had, this spot was an excellent lo-

cation from which to observe the movements of the first settlers.

After leaving the *Piedra Gorda* and crossing over a low saddle of hills, the *Aguaje del Garvanza* is reached.[12] This contains a small ranch with pastures, wooden houses with porches, and sheep-corrals. Nearby a spring flows. The valley here flattens out into a vast meadow cut by a small brook that flows on into the Arroyo Seco. Above is San Pasqual with its orange groves; crossing over small stones and boulders through the bed of the Arroyo Seco with its alders, a hill is reached which is thickly covered with a whitish plant called by Californians *Ramita ceniza*.[13] This plant is said to have the property of preventing the wounds of animals from becoming infected. From this hill a superb view opens out over the entire valley of the Arroyo Seco, the Los Angeles River, and far across the mountains and valley. So enticing is the view that it inspires the traveller to loiter here for hours. Upon descending and leaving, on the left, the *Cañada Grande*, the broad extensive Mesa of San Rafael is reached where yellow-brown hills stretch out towards San Gabriel.[14] On their summit a group of horses graze. Climbing down over chalky rocks a pleasant valley, *El Valle de la Rosa de Castilla*, watered by a brook of the same name that has an outlet in the *Laguna de Monterey* is reached.[15] Here the ground is considerably broken up and where especially dry is what the Californians call *tierra arrastrada*.[16] This, however, can be readily utilized for raising grain.

The road leading from here to San Gabriel Mission swings toward the right through gently rolling hills and on past the railroad leading to San Bernardino. In the background tower the impressive Cucamonga Mountains.

Where the brook dwindles off into a swamp is the *Portesuelo de la Rosa de Castilla*.[17] In this place the soil, which heretofore was merely rich, now shows a vein of chalk-covered marble lying between layers of quartz-like sandstone. This forms a kind of natural stone bridge which is said to have been used by the Indians

in passing over the marshy lands. It is called *Puente de la Viejas*.[18] With it is associated an old witch-story to the effect that whenever horses passed this point, the witches would hold them prisoners for a quarter of an hour while they indulged in all kinds of evil pranks. The brook, at one point, also reveals a stretch of this same stone. Pools of water remain throughout the summer and here the sheep come to drink. On beyond this is higher ground called *La Loma Alta*.[19] After passing an adobe house, *Las Positas,* the road to San Gabriel is reached, and, later, Los Angeles.

CHAPTER

26

RANCHO DE LA LAGUNA

One of the most interesting drives in the vicinity of Los Angeles, a drive where glimpses may be also had of early California, is that leading to *Rancho de la Laguna*. On the way to this rancho the road leads past Perry's house, noted for its fine view out over Los Angeles, and across gardens filled with vineyards and orange trees, which have already been mentioned, and which, with its projecting balconies, airy verandas, and orange garden fenced in with pickets is one of the finest places in the vicinity of Los Angeles. After passing a charming cottage and travelling on across rolling hills, the road continues along the banks of the Los Angeles River that serves as a boundary-line for the orchards. The ground is undulating and most of the houses passed are built on knolls. Occasionally down in gulches are found springs. After crossing one unusually deep ravine the road emerges onto an extensive hill that commands a vast view off across the plains where the distant mountain peak of San Pedro looms against the horizon. From this point the road redescends gradually to the plains. Glancing off into the far distance only an occasional ranch, clumps of trees, or the dust of a travelling vehicle is seen to break the monotony of the landscape. At the base of the hill where the plain begins, a river with a dry sandy bed is crossed, and at this point the road continues on to Los Nietos. Another road, however, turns to the right and leads to the *Rancho de la Laguna* where the early Californian ranch-house with the mountains in the background makes a charming picture.[1] The house is an extensive adobe structure, surrounded by porches supported by 15 columns and en-

closed by a picket rail. The roof is of brea and has a wooden cornice and small wooden drains. An inner patio contains a well; adjoining this is a corral for sheep. Numerous horses pastured near the rancho enhance the atmosphere of early California. Not far from the home lies the lagoon which is thickly covered, along its edges, by a reed belonging to the mallow family. Near the water willows grow rankly; back from the shore grows fresh grass. Adjoining the house is a shallow pool, then marshy land overgrown with swamp reeds, and, here and there, willows. Beyond is navigable water where a small flat-bottom boat is tied, which, though equipped for rowing, appears to have been virtually abandoned. Gay dragon-flies flutter over the banks, ravens saunter solemnly around the pool, wild duck and many pelicans that catch small fishes in its lagoon are also seen resting on the shore. Having been undisturbed by human beings, these creatures are quite tame. In fact, when small stones are thrown in their direction they do not even move. On the left, toward the navigable lagoon are more reeds; the other side, that is, the southwestern shore being, however, bare. In the marshes the tall reeds intertwining with the trees make an almost impenetrable thicket somewhat resembling the tropics transplanted into a modern setting. The silence, the natural wildness, belie description.

Despite the presence of the lagoon, the air on the ranch is not harmful and is even said, in winter, to be mild and balmy. Having visited for a time with the sunburned inhabitants on this remote ranch—being Californians they were typically amiable and hospitable—we departed reluctantly from this enchanting spot so reminiscent of early California.

CHAPTER

27

THE FERTILE SAN GABRIEL VALLEY

Every traveller who comes to Los Angeles should not fail to visit the old mission of San Gabriel and its magnificent orchards. Lying between the foothills that define one side of the Los Angeles Valley and the main chain of the Sierra Madre is a series of valleys known as the San Fernando, El Monte, San Gabriel, and Chino Valleys.[1] These which stretch from east to west for some 45 miles have an average width of 4½ miles and contain about 130,000 acres, or some 200 square miles. This land may be classified as follows: 45,000 acres of pasturage; 40,000 acres of vineyard and semi-tropical fruit land; and 45,000 acres fruit and wheat lands. Wheat, since these valleys lie inland from the coast, flourishes in this location.

Of these, the first to be considered is the San Gabriel Valley. The fruit-bearing lands of the San Gabriel Valley, which are celebrated far and wide, stretch from southwest to northeast, being about 2 miles wide and 10 in length. On the western end these merge into low-lying hills; toward the east for a distance of some 20 miles stretches a level area. On the north end of this valley tower the somber Sierras. The soil here is varied in character, consisting of grayish, porous, sandy, gravel-surfaced soil and a black, sticky clay. Both kinds of soil are, however, equally productive if given ample water.

The trip out to San Gabriel can be made either by the Los Angeles and Independence Railway, or by carriage. The latter is gen-

erally preferred, since the trip can be made comfortably in one afternoon. After leaving Los Angeles by way of Aliso Street—so-named from the solitary alder rising near the Philadelphia Brewery and which with its several houses is one of the finest sections of Los Angeles—the road soon swings out into the country. At the Aliso Mill it turns to the left, parts from the old Aliso highway, and becomes a dusty country road. Near the road runs a drainage canal lined with wood that is used to divert water from the Los Angeles River. On the left-hand side of the road near a garden a fine Latanian palm tree is visible, several more of this same species, which is indigenous to the desert, being planted within the garden. From here on the road winds on the right past vineyards and fields of Indian corn. On the left toward Casalinda stretch shady groves of walnuts. A covered bridge leads on across the Los Angeles River, a similar bridge serving for the tramway that runs over as far as Perry's house. Off across the river toward the left where the land begins to ascend stands the Los Angeles Distillery, where brandy is manufactured.

Once having passed beyond the section that is irrigated, the region seems very dry. On the right stretching toward the hills lies a little valley where an old distillery is located. From here the view off across the sparkling Los Angeles Valley with its superb background of mountains is magnificent. A plank bridge thrown over a small gully leads to a point where a fine view may be had beyond the upper end of the bed of the Los Angeles River and from there to a flat stretch surrounded by low hills, which serves as the home and playground of innumerable ground-squirrels. In fact these tiny animals, as well as many flocks of sheep, are constantly met along the road. In a gulch on the right is Griffin's Ranch with its many gardens, enclosed by eucalypti, containing almond and fruit trees of every variety and watered by wells pumped by windmills. After crossing the tracks clumps of prickly-pears forming green patches and occasional sun-burned Californians are all that

break the monotony of the silent, peaceful landscape. After leaving, on the left, small knolls topped with clumps of prickly-pear and having again crossed the railroad, where a magnificent view of the superb panorama of mountains is visible, the way leads into low ground where, on the edge of a small brook, ſtands the Fire Mill House. This, which is a small wooden ſtructure surrounded by a few poplars and willows, is used as an inn and is much frequented by travellers. Here we met several wagons bringing in loads of oak-wood from the mission valley. Having again crossed the track, the road now begins to ascend slightly. At this point it commands a broad view out across the valley to the foothills and the towering mountains and on the right over undulating hills. The ground near here is covered with several ſtrange varieties of grass, being rather sandy and comparatively free from gravel. A small valley thickly overgrown with prickly-pears is soon crossed, from which is afforded a superb view toward the mission and which is soon reached after passing through a second valley.

Upon arriving, on the left is seen the depot near the church, some adobe houses with shingle roofs, young orange groves, a boarding-house surrounded by alders and peppers, a few small wooden houses on a duſty ſtreet, and finally, the mission. This is conspicuous because of its six-bell arch and the 10 outer columns. Within, on either side, are seen 7 supporting pillars, exposed ceiling scaffolding, and walls thick with duſt. Above the entrance rises the tower. A simple wooden chancel, an altar dating back to the rococo era surmounted by a madonna and several wooden benches form the solitary decorations inside the church. On the right appear two small side-doors and on the left a large arched door recessed into the church wall, the door being ſtudded with large round copper nails. Over the arched portal has been placed a small niche for holding a ſtatue. Out in front is an outer ſtairway having an arched door. This has two pillars at the sides, railings in the center, and, above, an iron balcony that forms the

entrance to the tower. On the opposite side of the church lies a small graveyard.

Connected with the church by a vine-covered pergola is a parish house. The resident priest proved to be a Catalonian who escorted us to the home of his oldest parishioner, Eulalia Arrila de Perez. Across from the parish house, whose entrance is marked by a tall palm, is the mission garden where refreshing groups of olives and peppers, great nut-trees, pomegranates, rows of lemon and orange trees, and giant cedars like those found in Corfu grow luxuriantly side by side. Over all reigns a peaceful, sunny silence. So strongly reminiscent is it of the land of Southern Europe that it creates an ardent longing to settle permanently in this peaceful, restful corner of the hemisphere.

The missionaries in the early days displayed extraordinary acumen and foresight in their choice of locations for new settlements. In their selection they stressed above all else a fine view, protection from sharp winds, good soil, and the proximity of water—these four conditions being given prime consideration. What was further achieved was accomplished in the course of time with the aid of the thousands of neophytes they had at their disposal. The missions, as a matter of fact, have formed the basis of flourishing settlements, many of these having developed into important cities.

In few places, however, are these four basic conditions so admirably combined as in San Gabriel. The air is far purer here than in Los Angeles, the winds are milder, and the soil and climate, it can be truthfully said, are almost perfect. Though San Gabriel has failed to grow into a city, yet in the neighborhood of the mission have been developed some of the finest properties in the county. Of these, among the most important are the estates of L. J. Rose, Hon. B. D. Wilson, Colonel E. J. C. Kewen, and General George Stoneman, all four of whom have princely holdings. J. De B. Shorb, F. Bacon, Colonel Winston, White, L. H. Titus, W. S. Chapman, Messenger, Tallant, Volney E. Howard, and others

have fine estates as well.[2] In addition are many small landholders who, having acquired some 40 to 100 acres, have developed on these fine houses and flourishing orchards. This country, in fact, has had an amazing development.

Of several of the more important estates a brief description will now be given beginning with the estate of Mr. Rose, President of the Southern District Agricultural Society. This is reached by leaving the mission and crossing a sun-baked plain where the Sierra looms up in the distance. Here and there are passed frame or adobe houses surrounded by various plants such as tobacco. Then, following a road leading past several live-oaks and over a gully, the traveller finally emerges on a plain planted out to grain, maize, and tobacco. After passing a large vineyard, Mr. Rose's estate, "Sunny Slope," is reached. The approach to the house is toward the east through an avenue almost a mile long, that is formed by a double row of strong nine-year-old orange trees. At the end, on a small knoll, stands the house surrounded by verandas and shaded by great peppers, sturdy eucalypti,—one of these is 7 feet in circumference and 90 feet high—figs, almonds, and walnut trees. Mr. Rose acquired this property about 16 years ago; then, to secure water rights, increased his holdings by purchasing about 2,000 acres of the Santa Anita Ranch. This purchase enabled him to create within this length of time one of the finest places in the country. In so doing he found that the sandy soil and the fact that a constant stream of water flows here throughout the summer season were of invaluable assistance. Over a hundred years ago the missionaries built the dam, now on his property, through the narrow part of the brook, and brought water through an outlet ditch over into a reservoir which is only a short distance above Mr. Rose's house. Although this is no longer standing the dam has been preserved and is now used by Mr. Rose, who brings the water through a main channel up to the knoll where the house stands, distributing it from this main point in every direction. To facili-

tate irrigation a small depression has been made between each row of trees; around each tree has also been made a twelve-foot basin of earth thus retaining the water around its roots. The main stream is diverted wherever the trees need water. Mr. Rose irrigates every six weeks, cultivating after each irrigation. On his property are approximately 600 or 700 orange trees, among them many fine, shady fifteen-year-old specimens with heavy trunks. There is also a large vineyard of 150 acres planted out to 135 vines most of which have come from along the Rhine and which are kept trimmed low. In 1873, these produced 70,000 gallons of wine and 23,000 of spirits. In 1875, they yielded 100,000 gallons of wine and 30,000 gallons of spirits. His wine, port, and angelica, sell on an average for $1 a gallon; one-year-old brandy for $2 a gallon; white wine—only an inferior kind is produced—for $.50; a fine product made from Blue Elba grapes, and Zinfandel claret are highly prized as table wines. Four copper distilleries are in operation that produce daily 1,000 gallons of brandy, while a large cellar has storage capacity for 200,000 gallons. Germans, however, are familiar with the preparation and handling of wines and brandies.

In addition to these orange groves and vineyards, Mr. Rose has walnut trees and fruit orchards. In 1875, he marketed 250,000 oranges, 50,000 lemons, and 25,000 pounds of nuts, as well as apples, pears, peaches, figs, nectarines, apricots, and olives. He makes his own orange boxes and wine kegs. The stables are reached—Mr. Rose also has famous stables and raises beautiful horses—by passing again through groves of oranges and olives, more vineyards, and another garden. All hay and oats consumed on the place are grown by the owner.

The most easterly property in the fruit belt is the Santa Anita Ranch of some 8,000 acres which lies directly east of Rose's "Sunny Slope." This ranch, which totals close to 8,000 acres, contains primarily groves of timber and orange orchards. It also

has an ample supply of water including artesian wells. Formerly the property of Messrs. Newmark and Rose, it has been recently purchased by E. J. Baldwin who has introduced any number of improvements.[3]

After leaving Mr. Rose's stables the route leads past many thriving orange-groves. On both sides of the road young groves have been planted out in the porous soil. Frequently between rows of trees corn is seen growing. Many of these fields are bordered by rows of eucalypti. Flying in and out of these Spanish gardens are often seen blue-winged crows and gleaming black birds.

From a hill crowned by evergreen oaks where Mr. De Barth Shorb lives may be had a splendid view off across the vast valley dotted with the vineyards, orange groves, and apple, pomegranate, nut, and other fruit-trees that thrive so abundantly in this land of promise. After passing a vast vineyard and orange-grove, the flourishing ranch owned by Mr. Wilson, known as Lake Vineyard, is reached on the right side of the road at the western end of the vineyard and orchard.[4] Here, thriving cacti, figs, strong orange trees, a small house, and a giant oak are all surrounded by a high fence. The lower half of the house is built of brick, the upper of wood. Near the house grow several superfine specimens of orange-trees, pomegranates, and figs. Particularly ornamental is a graceful weeping-willow planted in the foreground. From his property an extensive view unfolds. Not far away is a small stream, another large orange grove, and a pond formed by waters diverted from the brook where *Fulicas* float among the many weeds.[5] Undulating hills, and occasional clumps of trees covered, now and then, by the heavy foliage of grapevines are in evidence.

A section of Lake Vineyard has passed into the hands of De-Barth Shorb, Mr. Wilson's son-in-law, and is known as Mount Vineyard. On this the aforementioned house was built. Mr. Shorb's property is watered by an irrigation system 3 miles long where drains of hollow tile were used. Lake Vineyard has 1,300

acres and Mount Vineyard 500 acres. The grape harvest of 1873 yielded 75,000 gallons of wine and, in addition, 5,000 gallons of brandy. Both groves produced this year more than 1,000,000 oranges and 75,000 lemons, as well as limes, olives, and walnuts.

Directly west of Lake Vineyard, on the mesa about 200 feet above the valley proper, lies Oak Knoll, an estate with a large vineyard which is irrigated by 3,000 feet of four-inch pipes equipped with hydrants at convenient intervals; 1,500 acres of this ranch are planted out to grain; large herds of cattle and fine horses are also raised.

Adjoining this is Colonel E. J. C. Kewen's garden, "The Mill," *(Rancho del Molino),* a miniature paradise where the soil is so rich that even without water it bears extraordinarily abundant crops. The house, which was once an old storehouse and granary erected 100 years ago by the Franciscans of Mission San Gabriel, has walls 5 feet thick.[6] Its water supply is ample, a brook flowing from an upper well crossing the garden near the house. In addition to this there is a second well on the property. The garden is very delightful with its splendid weeping willows, its nut-trees—pecans, black walnuts, hickories—and its bananas. Over the latter, humming-birds hover constantly and build their nests in the shelter of its broad leaves. I made some sketches of these birds and their nests as they fluttered like so many butterflies about the bananas, these sketches being reproduced on the cover of this volume. Below this miniature park is an orange orchard of superb eleven-year-old trees, as well as limes and lemons which are planted as far down as the pond. On this estate, which contains 450 acres, are also raised some fine grapevines.

Out in the country beyond Kewen's orchard, after passing any number of babbling brooks, extensive vineyards and, now and again, a frame or adobe house, General George Stoneman's estate, with its small duck pond and little house shaded by great green oaks is finally reached.[7]

Twenty-eight years ago General Stoneman, who was at that time a lieutenant, came out to California and camped on the site of his present estate. About 5 years ago he purchased 500 acres at $50 an acre, sold 100 acres for $100, and from the balance created the splendid estate which is called *Los Robles*. From wells and streams—the General intends later to breed trout—a daily flow of 800,000 gallons of water is secured. On his estate are 100,000 grapevines from which, in 1873, were made 20,000 gallons each of wine and brandy. Since all his equipment is new, the General has installed a modern wine-press and a distillery run by steam for making brandy, which is arranged in a series of levels so that the wine from the time it leaves the fermenting and crushing machines down to the time it is made ready for market, travels in a series of falls which materially lessen the labor in its preparation. The General has 100 orange and nut trees in full bearing, figs, pomegranates, olives, pears, peaches, plums, cherries, nectarines, almonds, apricots and lemons, as well as several kinds of bananas that have been introduced, and an excellent vegetable garden. Especially famous is his rose-tree that has a trunk of 15 inches thick, a height of 8 feet, and a crown which has reached up 20 feet into the air while its branches almost touch the ground.

A little valley lies beyond his property, a valley thick with alders. Here, as throughout this land wherever water is present, vegetation flourishes. Without it, the country is parched and lifeless. Occasionally, grounds dotted with fine oaks and fenced with pickets are passed along the road. This, all in all, is a pleasant, thriving, rolling country. A superb view of the mountains may be had on the return trip, from a gap made by the channel of the Los Angeles River, which presents a picture of tranquil, classic beauty. Further along, on the left, is passed a wooded hill where squirrels scamper under live oaks and a valley where oaks and alders intertwined with wild grapes grow in bacchic abandon. Upon descending to the bed of the Arroyo Seco, such wild plants

as the slender *cereus* and other indigenous species are encountered and, when crossing over the dry river bottom, the wild pointed-leaf melon.[8] On the left, green hummocks are passed and after reaching the valley of the Arroyo Seco, Los Angeles with its lofty church towers again looms up in the distance. The Arroyo Seco having been left behind, the road now threads past scattered houses to a point where, under the shade of the alders, a kind of pavilion suitable for picnics, where refreshments are served, has been erected. This is called Sycamore Grove Restaurant. In front of the pavilion is an arbor and benches and an octagonal-shaped platform with bleachers below. This spot is a prime favorite for picnics.

Bordering on the Arroyo Seco is an important settlement promoted by the San Gabriel Orange Association and known as the Indiana Colony.[9] This association controls about 4,000 acres of excellent land in the southwestern part of the San Pasqual Ranch. Their property is adjoined on the south by a fine grove and on the west by the Arroyo Seco, and has been divided into 100 holdings, of 15 acres each. Through the center runs Park Avenue, where miniature parks have been laid. On its eastern side is Fair Oaks Avenue. On the west end is being built a street that winds in and out among evergreen oaks and alders along the Arroyo Seco. Near this road are many springs, although what water is used for irrigation and domestic purposes is largely supplied by a reservoir that holds 1,500,000 gallons. Three miles north of this reservoir the *Toma,* where the water flows out of granite formation, is brought by a ditch into a basin and from there piped down to the reservoir. The reservoir and pipes have cost $20,000, the former being located at least 60 feet above the highest point in the company's land. This property, which was purchased at prices ranging from $8 to $66 an acre, has a great future.

What can be accomplished even without water is amply shown in "Fair Oaks," the estate of Benjamin J. Eaton, 12 miles northeast

of Los Angeles, where 18,000 grapevines which have never been watered are growing. "Fair Oaks" is a charming spot surrounded by a dozen splendid live oaks and commands a magnificent view off across the country. The owner, who had originally only $40 and about 200 acres of land, within 9 years was offered $25,000 for his holdings.

After leaving Sycamore Grove restaurant the valley widens. In the neighboring gulches grow many alders and both kinds of prickly pear, while on the right thickly overgrown with alders, is the broad gravel-strewn bed of the Los Angeles River. From this point a view off across the entire valley bounded by undulated hills is visible. A short distance beyond, a brick-kiln is passed. Next is reached Downey Avenue in East Los Angeles. This is served by a tramway which, as previously remarked, crosses the broad, almost waterless bed of the Los Angeles River on a long wooden bridge. After passing on the right the railway that comes in from the San Fernando Valley and on the left some handsome palms, the city is reached by coming in on Alameda Street.

CHAPTER

28

THE MOST IMPORTANT SETTLEMENTS IN THE COUNTY

San Fernando is among the most important settlements in the county. This is a settlement that has grown up around the seventeenth mission established which was named for King Ferdinand III of Castile. Funds to erect this mission were supplied by King Carlos IX of Spain and the Marques of Branciforte.[1] To Indians this place was known as *Achois Comihabit*. The location is healthful and, since it is only 20 miles in from the sea, the heat is tempered by breezes. The country, furthermore, has an ample supply of artesian well water, the canyons and banks of brooks contain large numbers of oaks, alders, and cedars, while only a short distance up in the mountains are vast areas of white pine, spruce, and redwood. When the mission was in its prime, it had many outlying buildings which are now, however, fast falling into ruins. The central building, used by the fathers and their servants is still standing and is in an excellent state of preservation. At the present it is being used by General Andrés Pico for a dwelling.[2] This building is two stories high and has heavy walls 4 feet thick. It is 300 feet long, 80 feet broad, and is designed with arches, columns, and long corridors. It contains within a large reception hall and a stately church 150 feet long where, once a month, services are conducted by a priest from Los Angeles. The mission gardens, now belonging to the heirs of Don Andrés Pico and Don Eulogio de Célis, are very beautiful. Adjoining these are some 32 acres planted to 300 olive trees as well as many grapes, figs, peach-

es, pears, almonds, and pomegranates. The gardens are watered by irrigation ditches that were built some 70 years ago.

The San Fernando Valley, or ranch as it is more usually called, contains 121,542 acres. When the missions were secularized it became the property of the Mexican government coming under the control of the governors of California. To secure revenues to ward off encroachment on the part of the Americans, Governor Pico sold it to Don Eulogio De Célis for $14,000. Ten years later, however, Don Andrés Pico bought half of it, including gardens and half the buildings, for $15,000. A few years ago, his half was purchased by several men acting under the name of the San Fernando Farm Homestead Association, formed by a certain Senator Maclay. This half of the 59,550 acres was sold for $115,000 and did not include the gardens and 1,000 acres adjoining it, which were kept by Don Andrés Pico.

Mention should be made at this point of the Encino Ranch of 4,400 acres, 3,300 of which, belonging to Eugene Garnier, were formerly part of the San Fernando Ranch. Garnier is a sheep-grower on an extensive scale. In the past few years he has spent $18,000 for French merinos and as much as $700 for one single ram. He also purchased 60 French merinos at $200 apiece. At the state fair in 1867, he bought 4 French merinos for $1600 and 4 Spanish merinos for $800. Mr. Garnier employs a steady force of 20 men. During the season, these men shear from 35 to 50 sheep a day. He is reputed to raise the best wool in the county. For his workers there has been built a two-story boarding and lodging house. This has a fine well in conjunction where the cattle are watered.

San Fernando is noted not only as a wealthy wool and petroleum center, but also because of its tunnel, which has made possible direct rail connection between Los Angeles and the network of American railways, and which lies some 28 miles beyond Los Angeles. This tunnel was not cut through one main mountain but traverses a series of hills and valleys. It extends from north to

south for a distance of 6,964 feet, its deepest point being 600 feet from the summit of the mountains. The excavation is in the form of a trapezoid, the upper part which forms the largest side of it, being topped by an arch. The breadth of the bow is 14 feet; its height at the sides up to where the arch begins is 16 feet; the height to the far end of the arch is 21 feet. The sides and upper portion are supported by heavy timbers which, as a matter of fact, are nothing but Oregon cedar. Directly on the ground, which is composed of blue clay, sand, and crushed rock, loose planks have been placed. The southern approach has a slope of 2 feet in every hundred until it reaches the mouth of the tunnel where the ascent toward the north of 1.10 feet in every hundred begins. At its northern end is reached its maximum elevation; from this point it descends with a declivity similar to that on its southern approach. Work was begun simultaneously at both ends of the tunnel, and while this was progressing considerable water was encountered. In constructing the tunnel a crew of 4,500 men were employed, the white men receiving $2.60 and board, the Chinese $1.00 daily. Mr. Frates was made the general manager, Mr. J. B. Harris being the superintendent in charge of construction. The total cost approximates two million dollars.

Duarte, a new settlement of 2,500 acres about 15 miles from Los Angeles, has had an extraordinarily rapid development. Its boundaries run from where it skirts the foothills on its northern end to where it slopes gently down toward the south, there merging finally into El Monte.[3] Land there, most of the soil being a rich, sandy clay, is now worth $30 to $40. Owing to its sunny location, Duarte, like San Gabriel, is well adapted to raising fruits. As early as 1874 a school was established here.

East of Duarte lies the Azusa Ranch, a place recently thrown open to agriculture.[4]

El Monte, one of the oldest American settlements, is located 12 miles east of Los Angeles on the Southern Pacific Railway.[5] It is

an attractive, pleasant place and has a Masonic Lodge and a good school. Not far from El Monte, in the direction of San Gabriel, is the Episcopal Church of Our Saviour built at a cost of $4,000 by Mrs. Frances Jones Vinton. Its rector is the Reverend Mr. Messenger. The soil here is naturally damp since, as already shown, the San Gabriel River flows underground, thus eliminating the need of irrigation. El Monte comprises about 10,000 acres, which are rented out in small tracts for farming. Many of these, however, are being bought outright. Land costs from $25 to $75 an acre, and, where cultivated, considerably more. Willows and cottonwoods frequently encircle the fields, which are admirably adapted to Indian corn which, in this locality, yields from 75 to 125 bushels an acre. Potatoes that often yield from 8,000 to 30,000 pounds an acre; the beets, and other tubers thrive here. The raising of hogs is one of the main occupations, lard being an important commodity, though it is largely consumed locally, since many rich farmers do not raise enough for their own use.

Downey City, on the Anaheim Branch of the Southern Pacific Railway, 12 miles beyond Los Angeles, is the loading point for a large part of the Los Nietos district, 150,000 bushels of grain being shipped out annually.[6] Several new buildings have already been erected, notably the Baptist Church, while the district supports two public schools and the Downey City Institute, a growing institution.

The district of Los Nietos spreads over 8 or 10 square miles. Six years ago it had only a few adobe houses; now, on the contrary, it controls 7 public school districts, all having good school-houses, erected at a cost of from $1,000 to $4,000 apiece.[7] The postoffice is in Downey City. Prices of land vary from $80 to $100 an acre, landowners, as a general thing, owning from 10 to 40 acres of land. The Los Nietos country that begins near El Monte and extends south for 13 miles along the San Gabriel River is a veritable garden spot, being largely rolling hills amply watered by the San

Gabriel River. The soil at Downey City is a rich, sandy fertile clay and naturally so moist that it requires no irrigation. The region has been settled for many years. Certain sections that have been under cultivation regularly for a century yield harvests as abundant as in their first years. The main product is Indian corn, although barley, rye, and potatoes are in high favor. The yield of Indian corn is from 50 to 125 bushels, 75 bushels being the average. In dry years it has sold as high as $2 a hundredweight. On the other hand, under exceptional conditions it has sunk as low as $.50. Though oats grow to be 7 feet high, nevertheless, the fact that barley is preferable for feeding livestock has retarded its cultivation. Barley frequently yields 75 bushels an acre. Quantities of beets are also raised for cattle, many of them weighing as much as 120 pounds and yielding from 125 to 150 tons an acre. Castor-beans, moreover, are extensively raised since the yield is high. Tobacco is also grown; the production last year was 40,000 pounds. From one acre as much as 3,000 pounds have been cut. Two harvests, furthermore, are assured annually, the average harvest being around 2,000 pounds. The fruit industry is also progressing favorably, fine oranges, peaches, pears, apricots, and nuts having been raised. Such fine land is naturally expensive, and has a valuation of $60 to $150 an acre. One hundred and forty acres have been subdivided into lots 70x145 feet and are being sold at prices ranging from $100 to $150 an acre. Hog-raising is one of the flourishing industries.

Spadra, lying between two rows of hills some 25 miles beyond Los Angeles, is at present the terminus of the Southern Pacific Railway.[8]The settlement was so named by Uncle Billy Rubottom in honor of Spadra Bluffs on the Arkansas River where he had spent many happy days and where he lost his home through an adverse decision of the courts several years ago. At that time he moved out here, bought 200 acres, and opened an inn which is still in operation. Around his inn a settlement has come into existence.

This valley is extremely fertile and has ample water. About two miles back of Spadra is the upper end of a long 15-mile valley comprising about 100,000 acres of excellent land that lies between the Sierra Madre and the coast range, from there extending over into San Bernardino County. In the western corner of this valley is the rapidly-growing settlement of Pomona which is within the boundaries of Los Angeles County. Pomona covers in the neighborhood of 10,000 acres of land and is watered by fine mountain springs. On its northwest corner at the foot of the mountains is the small colony known as *San José* and, nearby, *San José Rancho,* with its 24,000 acres of which Louis Philipps and H. Dalton own 8,000 acres each, the heirs of Ignacio Palomares holding the balance. This, which consists of alternate stretches of hills and flat lands, at the present time is being used exclusively for raising cattle; however, if divided, it would prove well-adapted to agriculture, especially fruit growing. On the ranch several schools are located.

The Santa Ana Valley embraces a long series of thriving settlements, the result primarily of its fertile soil and abundant water. In the canyon of the Santa Ana River 12 miles above Anaheim is a natural rock dam from which all irrigation ditches should properly start. A ditch used by District Number 1 has already been dug through the firm red clay on the north bank of the river. At the point where these ditches leave the canyon they are approximately 100 feet above the bed of the river and this abrupt fall should afford many opportunities for industrial development. By these ditches practically the entire tract of 15,000 acres lying north, northeast, and northwest of the city is watered. District Number 1 operates under the county irrigation laws; on the south and east another district of equal size has been created. At the present, ditch No. 1 is being extended to include two districts near Anaheim; when this is completed, it will water, including the 2,000 acres served by the old Anaheim ditch, a valley of 30,000

acres. Adjoining it are 15,000 acres from which still another district might be formed by constructing a ditch. South and west of these lands for some 30 miles a broad area extends toward the northeast and southwest that has an average width of 5 and 6 miles. Here artesian wells can be bored at any point—there are now more than 200 of them on production—which irrigate, since they vary materially in output, from 40 to 300 acres. Generally speaking, it is estimated that one or two wells are adequate for 100 acres, hence irrigation requires only a slight outlay. Considerable land is still available at $25 to $40 an acre.

Along the sea for 12 miles and running inland for 3 or 4 miles runs a broad stretch of *ciénaga* land which affords excellent green pasturage, being covered with wild alfalfa.[9] An acre of such pasture-land will support from one to five cows year after year.

There are thus, as has been shown, many kinds of soil suited to a wide variety of products. Since most of these have ample water this is an ideal land for the agriculturalists, being suitable for maize, barley, alfalfa, hops, potatoes, flax, castor-beans, all kinds of vegetables, and many fruits, especially apples, pears, and berries. The valley slopes up from the southern coast at the rate of some 13 feet a mile. There are, however, many high places, some rising from 150 to 300 above sea-level. If watered, these lands prove quite productive though not to so large an extent as the former, being more suitable for wine-grapes and semi-tropical plants which do not require so much coolness and moisture, especially oranges, limes, lemons, bananas, pineapples, pomegranates, and guavas. These same high lands are, moreover, frequently used for raising such fruits as peaches, apples, pears, and various berries.

Of all these settlements, Anaheim is one of the most important as well as one of the most successful colonies in California. It lies 27 miles by rail from Los Angeles, and 8 miles in from the sea where it has a landing-place on the open coast some 3 miles from the Santa Ana River 150 feet above sea-level. Only a short time

ago a desert covered with sagebrush and cacti, it is now the second city in the county; nevertheless, because it covers so much ground, it seems more like a settlement than a city. Anaheim has a Catholic and Presbyterian Church, a Masonic Hall built of wood that cost $4,000,—its lower floor is used for a school,—a brick hall costing $9,000, a schoolhouse worth $2,000, and two hotels—the Planter and Anaheim. The city is laid out in a symmetrical manner around a central plaza planted with tall poplars. Willow hedges, which afford both quantities of excellent firewood and also give the neat houses a friendly atmosphere, are seen everywhere. The climate is equable, being especially adapted to those suffering from tuberculosis. Anaheim now has, within a radius of one and a half miles, a population of over 2,000 souls. Originally a German colony, it is now largely American. So rapid has been its growth that houses, as a rule, are rented when only half-completed. Below is a brief résumé of the remarkable development of this successful colony.

A group of fifty German settlers from San Francisco, men of various occupations and interests, formed a company to purchase 1,165 acres of land southwest of Los Angeles. This was incorporated as a closed-stock company, Mr. Hansen of Los Angeles being the founder. In August, 1857, the latter bought the present site of Anaheim—so-called from the neighboring Santa Ana River—paying $2 an acre. After the first installment on the land was paid from the capital account, on September 29, 1857, work was begun. Payments were made over a period of three years by Mr. Hansen who, being an engineer, was admirably suited to take charge of its development. In the interim the stockholders pursued their various occupations in San Francisco, merely meeting the payments when they fell due. Indians and Californians were hired as laborers; at the start 100, and later, 50 men were engaged. In January, 1858, the ground was staked off into 50 tracts of 20 acres each. In the center was placed a city plaza surrounded by 60 half-

acre building sites, the remaining 10 building sites being set aside for public purposes. With the help of day-laborers, Mr. Hansen planted each 20 acres, setting out 8 acres with 8,000 grapevines, and the balance in fruit trees. Each tract was fenced in with willows, alders, and poplars, making a total of 5½ miles of outer, and 35 miles of inner fencing. A main irrigating ditch 7 miles in length, together with 450 miles of secondary ditches, and 25 miles of connecting ditches was next constructed.

In 1860, the final payments were made. Each stockholder had subscribed $1,200 and the shares were now appraised at $600 to $1,400 each, lots being drawn for lands. Whoever drew a share having a value of more than $1,200 paid the surplus in cash; those drawing shares having a smaller value had the difference refunded in cash. After all shares had been drawn, all the personal property belonging to the company, such as horses, tools, etc., were sold. This left enough surplus to make a refund of $100 to each stockholder. About this time the stockholders took possession of their property. Toward the end of 1859, 12 families came out to settle; in 1860, 30 more followed, and by the following year all had arrived. Today most of these colonists are still in Anaheim. Building materials were purchased wholesale, a school was constructed, merchants bought city lots, mechanics of all trades were attracted, and even a newspaper was established. By 1870 a million grapevines were in bearing that yielded 400,000 gallons of wine, and 10,000 gallons of brandy, 10,000 fruit trees were growing in the gardens, each of the 50 share-holders had a comfortable dwelling, and the settlement had over 500 inhabitants. In addition to the public schools a church and a postoffice were established. Each share had a value, at this time, of $5,000 to $10,000 and could not be purchased at any price. In the early days, the settlers suffered many hardships for all were without experience in this particular business—among them being several cabinet-workers, four blacksmiths, a brewer, a teacher, a shoe-maker, a hatter, a

miller, a book-binder, several mechanics, a poet, four or five musicians, several wagon-makers, and an inn-keeper. Not one was a farmer and only one had ever made wine before.

Notwithstanding, in Anaheim these colonists have created by their energy and endurance the most lucrative vineyards in California that yield on an average 800,000 gallons of wine annually. The original 8 acres of vineyards have, in most instances, been increased to 18 acres, the balance being allotted to houses, orchards, and alfalfa. The city was forced to enlarge and where it was originally only 1,165 acres it now takes in 3,200 acres. The inhabitants are contented and prosperous and have, on the average, annual incomes of $1,000.

The success of this settlement sets an encouraging example for similar undertakings out in this country where so much room is still available especially south of the Santa Ana River. For new settlers, 40 acres would no doubt be far more suitable than 20; in the beginning it would probably be advisable to allocate certain lands to fruits, especially oranges, lemons, and olives.

In discussing Anaheim, mention should be made of the famous cider produced by Mr. B. Dreyfus who has a 200-acre vineyard and whose annual production reaches 175,000 gallons.

Southwest of Anaheim, between the settlement and the ocean, lies Westminster, a large, flourishing colony that is making rapid progress. Four years ago, the Reverend L. P. Webber, a Presbyterian minister from New Jersey, secured 7,000 acres from the Los Angeles and San Bernardino Company as the site for an agricultural colony. On this land about 40 artesian wells, each capable of irrigating from 40 to 60 acres, have been bored and new ones are being daily put down to a depth ranging between from 63 to 211 feet, many of which supply water for 160 acres. The settlement has a fine school-house which is also used as a church; a Presbyterian Church will also soon be erected.

Artesia, which is about 12 miles west of Anaheim between Coy-

ote Creek and new San Gabriel, and Centralia, about 6 miles northwest of Anaheim, are two new settlements with an important future, since they have splendid artesian wells and fertile soil.

Four or five miles west of the Santa Ana River in a valley near the foothills is the thriving settlement of Richland that has some 7,000 acres of excellent land valued at $15 to $25 an acre, or, when under cultivation, at not under $60 an acre. This colony has been developed in less than three years.

Only those settlements lying west of the Santa Ana River have, up to the present writing, been enumerated; those east of the river will now be accorded consideration.

Orange Valley includes what stretches of land lie between the Santa Ana, Temescal, and San Juan Rivers, and the ocean. Stretching from Burrels Point on the north to San Juan Capistrano on the south, it spreads over about 120 square miles and embraces the settlements of Orange, Santa Ana, Newport, Tustin, and the San Joaquin Rancho. The latter, which comprises about one-half of the entire valley, is comparatively undeveloped and is now on the market. Orange Valley is suited to the cultivation of all products indigenous to a temperate as well as semi-tropical climate. The land is mainly low but ascends gradually to the mountains. Only a section of the valley is watered by irrigating ditches, but if these were enlarged 40,000 acres could be placed under irrigation. Local settlers should organize under the irrigation laws.

Orange is the most northerly settlement in this valley, being 3 miles south of Burrels Point. Fruit-raising is its principal industry. Bananas, oranges, limes, lemons, walnuts, and grapes succeed and give promise of satisfactory profits. Orange is especially adapted to orchards since it is in the high section of the valley, is near the foothills where it is protected from frost, and has soil suitable for this purpose. With two excellent basins of gravel-land that assure early fruit crops and a large stretch of sandy loam, the farmer can readily raise fruit in addition to the usual crops.

Tustin, 3½ miles southeast of Orange, owes its impetus to Colonel C. Tustin for whom it is named. After four years of activity, Tustin has grown into a flourishing settlement. The soil here is a fine brown sandy clay, extremely easy to work, and admirable for raising fruit and grain. Water, however, is always required by the former, and in dry weather by the latter, and this is now being supplied by an irrigating ditch leading from the Santa Ana River. The settlement is pleasantly located near groves of alders. A mill run by steam has already been erected.

Santa Ana, 2 miles west of Tustin and 1½ miles southwest of Orange, is a town with a great future. The soil is a light porous clay of excellent quality and especially adapted to fruit-raising which, however, requires more or less water. The land slopes gradually southwest toward the ocean. As it dips the character of the soil changes and when well beyond the settlement becomes a moist black clay, which is almost a solid mass of top-soil which requires no water to produce fruits of the common variety which grow in extraordinary abundance. An acre of alfalfa yields 10 tons a year; Indian corn 75 to 100 bushels an acre, several thousand acres of this being planted annually after the first crop has been harvested. Barley is highly favored. Artesian wells 60 to 300 feet deep are found everywhere and when needed for livestock or special irrigation can be quickly bored. The community has a school and an Odd Fellows lodge.

Newport, usually known as Gospel Swamp, is situated on Newport Bay and is the landing place for the district east of the Santa Ana River. Here a large storehouse equipped with every facility to expedite the handling of freight has been erected. In this district are two schoolhouses. This settlement spreads out over an area of some 9 square miles and is inhabited by more than 100 families who own farms running from 40 to 250 acres, the average being from 80 to 100 acres. Much of the surrounding land is so damp that irrigation is unnecessary and good harvests may be se-

cured with comparatively little cultivation. Indian corn, barley, alfalfa, oats, rye, wheat, beans, and potatoes are the chief products, while considerable cheese is also made. Under construction at the present is a 16-mile irrigation ditch.

In conclusion reference should be made to the most southerly settlement in the county, Mission San Juan Capistrano, lying 33 miles south of Anaheim, where, in 1776, Father Gorgonio founded San Juan Capistrano—the seventh in the chain of missions. The mission church, however, was destroyed in 1812 by an earthquake in which 47 lives were lost. Until 1834, the year when the Mexican Congress began its persecutions against them, the missions flourished. In 1830 it owned several immense tracts of lands, where 40,000 cattle, 70,000 sheep, 5,000 horses and many mules and hogs grazed. Since its foundation, 4,790 natives had been converted and baptized. This mission, which, incidentally, was one of the largest, supported a soap-factory, made clothes and shoes, and operated a wood-working department and a blacksmith's shop. The gardens and lands contained 80 acres, in the former being 400 venerable olive trees. Many ancient pear trees, the favorite fruit of the fathers, are now standing but the vineyards have completely vanished. The San Juan River, flowing as it did throughout the year, proved a boon to irrigation. Some few months prior to the Mexican War, 80 acres of olives and other fruits were sold to Don Juan Forster for $800; these are now worth $80,000.[10] In 1853 the church was again rebuilt of adobe; this new structure, however, has again fallen into ruins.

OLD SANTA MONICA

CHAPTER

29

THE COUNTRY IN AND ABOUT SANTA MONICA

Santa Monica, which lies some 17 miles west of Los Angeles, is equally accessible by rail or carriage. In summer, stages make the trip regularly for the benefit of sea-bathers. When the trip is made by carriage the road leads first past beautiful gardens and pleasant houses, over a stream, and across the railroad tracks to where a fine view may be had of the picturesque city of Los Angeles rising partly on the plains and partly on the rolling foot-hills with its background of impressive mountains. Out in the western end of Los Angeles near the windmill adjoining the Stewart House with its commodious verandas, the main highway which is lined on both sides with quantities of castor-bean plants is reached. From here a road forking to the left leads to the race track or Agricultural Park; the road on the right traverses orange groves, flourishing vineyards, and fields of maize, again affording magnificent views of the mountains and the coastal hills sloping down toward Santa Monica. On the side of the road runs a wooden irrigating trough. After continuing past vineyards, windmills, young walnut trees, well-watered fields, and orchards, the road finally emerges on a pleasant plain bounded by an elongated hill stretching off into the distance. Scattered houses equipped with Holloday's patent mills and surrounded by small gardens usually enclosed with hedges of eucalypti dot the landscape. Passing a small gulch and continuing on toward the right a small house is visible rising on a slight elevation that overlooks the gently rolling plains

stretching off toward the mountains. By turning off in the direction of the hills, on the right at the foot of the mountain chain, appears Major Hancock's Asphalt Works, distinguishable by its smoke.[1]

From this point the road swings on past a plain of adobe from which are afforded glimpses of a fertile valley, lying like a green carpet in a withered plain at the foot of the hills. This is what is known as the *Ciénaga,* a marshy stretch of land 10 miles long and 3 miles wide. Since the land is constantly damp, the grass is green throughout the year, making excellent pasturage and, in certain areas, being suitable for raising grain and vegetables.

On the west, La Ballona Ranch, which is similar in area, adjoins this stretch. Though this land is fairly high, it has ample water, is extremely fertile, and produces excellent fruits, vegetables, and grain. Inasmuch as it is inhabited by Californians, a good school and a railway station have been established, the latter being named for Palomares, a prominent citizen in Los Angeles. On this ranch is a dilapidated old house where the robber Vasquez was captured.

Continuing on down the road, on the left stand a wooden house, clumps of prickly pears, and fields where sheep and cattle graze; on the right is a gully where ducks paddle in a tiny brook. Fragrant meadows filled with grazing horses, scattered houses, and a morass thick with marsh reed are passed until, at the foot of the hills, the Eight-mile House, or Halfway-Station, is reached. Here the hills on the left terminate. Adjoining the house is a well of good spring water, a little pump, and a pepper tree. The man living here is an Austrian from Zindis, and in his parlor hangs a portrait of the Emperor. "I once," said the good man, while he attempted to wipe the dust off the lithograph with his rough hands, "gave a Slovakian five thalers for it." Thus even out in the prairies, patriotism and devotion to the Emperor were enshrined in this humble home by a man who had left Austria at the age of seven-

teen and who, although he does not intend to return, yet still clings loyally to the memory of his Fatherland.

From this point a flat region having rolling hills on either side —the haunt of countless ground squirrels—extends on down to the sea. A turn to the right takes the traveller across government land known as the Rosen Grant Tract. On the banks between the valley and Wilmington may be seen salt-works overlooking the sea. On the right is a range of mountains; toward the left a projecting hill. The soil is sandy and artesian wells, which afford good water, can be brought in without difficulty.

After crossing the railway the road again skirts hills; toward the right and off in the foreground spreads an undulating dry plain dotted here and there with isolated trees and houses. By many of the scavenger vultures whom we met along the road we were allowed to approach fairly close; these creatures flew away only when we were within a few steps of them. Then, continuing on along the road, we were soon in Santa Monica.

Santa Monica is entirely a creation of late years. Its origin dates back to the building in January, 1875, of the Los Angeles and Independence Railway. This railway, shipping, and sea-bathing are the sole support of this new settlement.

What is visible upon arrival is not impressive. At the end of the plain stand little painted, wooden houses lining a solitary street, the nucleus of the future community. This main street is known as Tilden Street. On it the most striking buildings are a little church with a pointed roof and wooden tower and a fairly large hotel with two side wings connected by a central building. The view out over the ocean is, however, magnificent, as is that near the coast with its fine view of the Santa Monica Mountains. At the end of the esplanade, which is known as Ocean Avenue, is another hotel used exclusively as a lodging-house called Ocean House. Several rich merchants of Los Angeles have invested in lots on Ocean Avenue and these, in the course of time, will be

occupied by attractive summer villas. Santa Monica is supplied with water from San Vicente Springs 3 miles away. Two reservoirs have been built, one of these being 250 feet deep. Near the shore the plains terminate in dusty cliffs of clay composed mainly of conglomerates interspersed with crushed rock. In front of the hotel and near a pavilion where ice cream and lemonade are sold, a flight of 60 wooden steps topped by a gable leads down to the shore and to two small bath-houses that have been erected on the beach. The absence of violent winds such as prevail in San Francisco and its adjacent bathing-beaches, the pleasant temperature of the water, the fineness of the beach sand, and the invigorating surf make bathing wholly pleasurable. Old Santa Monica, which will now be described, is generally considered, however, the better place for bathing. New Santa Monica with its railroad, which expedites the trip between this point and Los Angeles is, on the other hand, more convenient. Through two cuts in the cliffs it has been possible for the double tracks of the railway to reach the wharf and still leave in the center ample space for vehicles. As a result the wharf has three lines of traffic. The wharf, which was completed last May, is a long, projecting wooden terminus built on piles. It is 1,740 feet long and is under water 24 feet at low tide. Present plans call for an increase in depth to 200 feet —an increase adequate for all future expansion. What was originally a double track has been continued and the right side of the wharf is now used by the railroad, the left by vehicles. On the left of the landing is a flight of steps which is lowered to meet boats, and davits equipped for raising two boats. Off the end of the pier toward the right and left are two buoys; around these swim sea-lions who are so accustomed, like those at the Cliff House, to the public at large that they are quite undisturbed in their frolics by the presence of spectators. At the right, somewhat nearer shore, are two small rafts that have been put to similar use.

The loaded cars used for delivering and receiving freight travel

out to the end of the pier to the wooden depot where all trains stop and where the employees and ticket office are housed. Over the building hangs a bell; on the left side stands a heavy crane ready to load and unload wares. Water has been piped out to the end of the wharf. To sit here for hours at a stretch gazing out over the vast stretch of ocean and watching the hordes of gray sea-gulls or the large gray-mantled albatrosses—veritable jugglers of the air—flying overhead, is indeed a pleasure. Up to the present writing this wharf, although built directly out into the ocean, has not been damaged by the seas, for the strongest winds, the northeasters, blow in from land. Steamers never fail to make a safe landing and have experienced so far no difficulties in tying up to the docks. As a matter of fact, there is no real harbor, merely an open roadstead, although Santa Monica Bay is fairly well protected. From Point Duma to Point Vincent the distance is 30 miles; the bay stretches 10 miles out to sea and has an area of some 250 miles. The bed of the ocean slopes off gradually until it reaches, on the outer side of the bay, a depth of 50 fathoms.

From the north-northwest to south-southeast, it is sheltered by land, Santa Catalina which lies about 35 miles south and Santa Barbara some 35 miles to the west, breaking the main force of the waves. Only on its southwestern extremity is it thus exposed to the full force of the open seas. Winds blowing in from this direction are, however, seldom stiff, and if so, are usually of brief duration.

On the south shore lies East Santa Monica. Here on the cliffs stand several houses and two frame buildings which serve as machine-shops for the railroad.

To reach Old Santa Monica the road curves on up to the plateau crowning the palisades, past pastures where sheep peacefully graze until the canyon of Old Santa Monica with its flowing brook comes into view. On its banks a bath-house and numbers of tents glisten in the shelter of the alders. High up on either side tower

the palisades, the ascent of their sheer cliffs being broken only by two plateaus. With its gay Mexicans, brown as desert Arabs, carrying long canes, and its elegant ladies riding horseback along the cliffs it makes an animated spectacle. The tents which are supplied with matting, furniture, and beds—usually camp cots—are erected on wooden frames and stakes to which the tent-cloth is securely nailed and are frequently used for weeks or even months at a stretch in the country. Many of them are manufactured in America, being purchased from Patrick & Company. The bathhouse which is down on the fine sandy beach has six compartments.

The glistening palisades stretching north from the shore are composed of conglomerates, clay, slate, shale, broken gravel, and weathered granite. At two points in the canyon water is visible dripping down through the friendly groups of alders and willows. On beyond is a place where carriages usually halt, called the Old Santa Monica Corral, where there are stalls for horses down underneath the alders. Not far from this stands Frank's Saloon, a large tent house or pavilion flying the American colors, which has a large rustic porch running across the front of the building. In conjunction is the stable, a large open affair with accommodations for many horses, which is used by the stages. It is all very delightful. Under the alders on the left side of the canyon are two frame houses; one is a little store carrying miscellaneous goods, the other is surrounded by a cornfield. An extraordinarily beautiful clump of alders rises on the left of the brook forming a natural arbor where simple rustic seats have been erected and where, if the signs are to be believed, music is furnished at certain hours.

In Old Santa Monica only about 45 families, who lead a simple, pleasant existence, are now living. No more economical or happier life can be imagined, as a matter of fact, than this life given over to picnicking under the trees and to enjoying the invigorating seabreezes, surrounded by congenial acquaintances. Many families,

in fact, remain two or three months at the beach, for the climate does not vary and ſtorms are of rare occurrence. On Sundays the ſtages come out, often carrying from 600 to 800 visitors from Los Angeles, whoſe citizens throng to this popular resort.

The return trip from Old Santa Monica to Los Angeles is made by way of a side valley that leads paſt thriving alders and well-watered lowlands where maize is ſprouting. Where the road begins to aſcend by easy ſtages onto a plateau there is ſeen a ſmall brick houſe with a ſhingled roof ſurounded by a grill-like thicket fence interlaced with leather thongs. From here the road continues on across a plain of adobe ſoil where ſome ſmall adobe houſes have been erected, until it reaches New Santa Monica. Then, croſſing a dry plain, it winds on toward Los Angeles. Far off in the diſtance looms Santa Catalina Island ſilhouetted in graceful outline againſt the hazy horizon. Finally, in ſhort time, the road joins the main highway leading to Los Angeles.

CHAPTER

30

WILMINGTON

ALTHOUGH Santa Monica is the closest, Wilmington, since it has the better shipping facilities, is the real port for Los Angeles. Wilmington lies 23 miles south of Los Angeles at the end of the Wilmington branch of the Southern Pacific Railway. After departing from the Southern Pacific station in Los Angeles, the train passes first through flourishing fruit orchards, fine orange groves, vineyards, willow hedges, walnut groves, and masses of castor-bean plants growing along the tracks. On the left tower the majestic mountains. Once the orchards are passed the country becomes flat and level, being varied only by occasional acacias and pepper trees. Then Florence, with its small wooden railway station, is reached on the right. The settlement of Florence is virtually a suburb of Los Angeles which is only about 5 miles distant. The soil in this district is fertile in the extreme and for a period of several years harvests have matured without irrigation. Already about 100 farms have been located in this vicinity. Artesian water is found locally at a depth varying from 70 to 150 feet. Every kind of grain, with the single exception of wheat, is under cultivation. Activities here center mainly in the fruit and wine industries.

Shortly after the train leaves Florence flat plains used both for grain fields and pastures are passed; here and there this is varied by an occasional home, fields of corn, clumps of willows, and a small pond which is spanned by a wooden bridge. Finally Compton, a small settlement 12 miles from Los Angeles, whose abundance of artesian wells assures crops throughout the year, is approached.[1] Near Compton good wells can be brought in from

shallow depths, 70 of these, each of which irrigates from 40 to 200 acres, having already been drilled. The soil is a rich sandy clay suitable for raising every variety of grain and fruit. Land here commands a good price, selling for $50 to $100 an acre. Compton now has about 150 ranches. Further out in the country, to the left of the track, the number of mills increases. Next is seen the broken range of mountains visible off toward the coast known as the Palos Verdes and, on the right, Drum Barracks, where the soldiers were mustered out during the last American war. Then come small bridges leading over a river-like lagoon thick with reeds where, during the winter season, countless ducks congregate. On beyond, located on high ground and surrounded by reeds, Wilmington Lake comes into view. From this point, since the land is comparatively flat, the ocean is plainly visible. On the right General Banning's house and what was formerly the military hospital now appear.[2] Then come more small swamps where concealed behind the tall reeds are some vacant grazing lands.

Wilmington, with its terminus costing $40,000, is at the end of the line and is now the principal port in the county. No doubt it will have a remarkable growth when it is made, as it eventually will be, the end of the Texas and Pacific Railroad. In the early days San Pedro with its few wooden houses, was the principal port until, in 1858, a small steamer was put into service to transport freight from ships lying at anchor in the San Pedro roadstead four miles away through the inner channels to Wilmington. This gave a new impetus to the latter port, an impetus which was further enhanced by the building of the railroad. At the present date it has about 1,000 inhabitants. The town consists of a number of scattered wooden houses, a Catholic church which was established when the town was founded, a Methodist church, a Masonic and an Odd Fellows' hall. There is also Wilson College, which was founded by D. B. Wilson, who donated 10 acres of land and two buildings, one which contains classrooms and a library, and the

other a dormitory.[3] Wilmington, though built on low ground that slopes down toward the sea, commands an attractive view out over the lagoons and a view of the harbor, with its shipping, to the distant island of Catalina and toward the eastern ranges of San Juan and Santiago, crowned by the lofty peaks of San Jacinto and San Bernardino with Cucamonga, the highest peak, frequently snow-capped, in the background. In and about Wilmington stretch some 2,400 acres of flat land, while an additional strip unsuitable for cultivation extends diagonally from northwest to southeast. On this land all kinds of grains and semi-tropical fruits flourish, a first harvest even being raised without irrigation and, at times, a second being similarly successful. An inexhaustible supply of water is found at a depth of 5 to 28 feet, which is pure and healthful. Almost every house has its own well and frequently windmills are used in conjunction with reservoirs for irrigating. San Pedro Bay is rich in fish, and the lagoons at Wilmington might properly be utilized for raising oysters.

Wilmington is already important as a commercial center, especially for wool. The large warehouse standing here was erected by the government during the war. It belongs to E. M. MacDonald of Wilmington and J. E. Perkins of San Francisco and holds 2,000 bales of wool. This is shipped out over the Panama line, which makes eastern connections.

In 1873, wool sent from Wilmington and Anaheim amounted to 10,000,000 pounds, but of this amount only a small proportion came from Anaheim. The commercial importance of Wilmington is indicated by the fact that 400 ships, carrying from 75,000 to 100,000 tons of freight arrive and depart annually.

A brief survey of the harbor is now in order, but before entering into a discussion of its facilities, a short description will be given of what has been done here by the government.

The harbor of Wilmington consists, first of all, of a small bay, which is virtually nothing more than a slight dip in the coast that

affords a firm anchorage. At the far end of this bay is a narrow entrance opening into a small basin leading, in turn, into a series of shallow lagoons. Across this entrance runs a bar covered by a scant 2 or 3 feet of water and which is formed of heavy clay, gravel, and rock. To remove this barrier a dam was thrown up to stem the force of the out-going tide and to break down the bar. For this purpose, from Rattlesnake Island (now connected with the mainland) a breakwater of rocks several thousand feet long was built out into San Pedro Bay and this was reinforced on the inside with wooden piles to break the strength of the tide. In this way sediment was deposited on the outer face of the dam, so much sand piling up that nature rendered material assistance to human effort.

Then on the opposite side, at right angles, smaller dams were built off Deadman's Island. This work was begun by Captain Sears in 1871 and partially completed by 1873. Congress appropriated $200,000 for this purpose, and later, an additional $225,000. Even this amount has proved inadequate, the shale being so hard that the current accomplished little, and it was finally decided to cut a channel 2,000 feet wide through the bar. In February, 1875, work was commenced. In excavating this channel a cut 60 to 100 feet broad, 10 feet deep, and 100 feet long was first made which will soon be completed. A dredger is now at work steadily and all material extracted is thrown in the sea. Progress is, however, slow, since the foundation is very hard and blasting of little value since done only in small areas. Beyond the shale is a thick layer of sand which can be quickly dissolved by the current. After this channel has been cut to a width of 100 feet it will be widened another 100 feet and its depth increased to 15 feet in the center of the channel, thus giving it a depth of 22 feet at high tide. For the present, however, a depth of 10 feet is adequate since this allows vessels drawing 17 feet to pass at high tide and the Goodall, Nelson & Perkins boats require only 10 feet of water. Soon, however,

it will be necessary either to extend the wharf out to this new harbor, which has a diameter of several hundred feet and lies about one and a half miles from the end of the wharf, or to dredge out a basin near the wharf which has only a small channel. The objection raised to this first plan is the cost of its construction, and the constant ravages caused by worms that eat into the piles thus necessitating constant repairs. For this reason dredging will probably prove preferable; estimates place the cost of dredging at a million and a half,—a small amount in comparison to its advantages.

The traveller who sails from Wilmington leaves from a pier that towers high above the aforementioned marsh lagoons thick with patches of marsh grass where, on the end, the wharf warehouses supported by piles have been erected. Here stretches another terminal projecting out for some considerable distance which is used by carriages. To this wharf small ships carrying in the main Colorado pine, come to unload. The tender *Los Angeles* plies back and forth across the harbor carrying passengers out to the steamers anchored in the outer basin, where the peacefulness of the scene is broken only by the fluttering seagulls. From this outer harbor is afforded a panoramic view of the mountains on the right, extensive plains on the left, and the high mountains of the cape sloping gently down to where they meet the palisades at the shore. Gaily painted buoys and wooden pyramids mark the navigable waters and cause vessels departing to describe a great arc as they set their course. On the left appear two small wooden huts and a fringe of sand dunes which separate the outer basin from the open ocean. Finally, where the land meets the outer sea, a few warehouses built of wood and several high ladders may be seen. Across from these, on the shore in a small cove in the palisades where the horizontal veined strata of soil are exposed to the elements, stand a few small houses. On down the coast a few more are visible; ahead is the bar; toward the left rises Deadman's Island; opposite on the right where the palisades end are several

more small houses. In front of these, steamers anchor in the inner basin, larger boats tying up at the outer moorings. Among the last houses stands, on the right, a green inn surrounded with broad porches, that caters to sea-bathers.

Then Los Angeles, at last, vanishes in the distance, while the sun dropping into the ocean throws its shadows over the distant outline of Santa Catalina, and the mainland becomes gradually clouded in the grayness of dusk. Tomorrow, however, the sun will rise once more—this glowing Californian Sun—and bring fresh life and vigor to this delightful land. But as our ship is already steaming away, by sunrise the Los Angeles coast will no longer be visible. And so farewell, Flower of a Golden Land.

THE END

NOTES AND INDEX

NOTES

Chapter I.

[1] Of these only four, properly speaking, were missions: San Diego, San Buenaventura, Santa Barbara, and San Luis Obispo. San Bernardino was merely an *asistencia,* or subsidiary of Mission San Gabriel. Nuestra Señora de Los Angeles was a church, or chapel, serving the local village.

[2] Los Angeles and San Diego Counties no longer touch; in 1889 this "triangle" became Orange County.

[3] *Punta Maga* probably refers to Point Mugu.

[4] Los Angeles was founded in 1781; San Gabriel in 1771; Anaheim in 1857; El Monte in 1851; Wilmington in 1858; Santa Ana in 1869; Westminster in 1871; Tustin-City in 1869.

Chapter III.

[1] *Celastrus obtusata* is commonly known as bittersweet; *eriogonum fasciculatum* as buckwheat; *euphorbiacee* as poinsettia.

[2] *Chlorogalum pomeridianus* is the soap-plant.

[3] *Agave Americana* is the century-plant; *opuntia,* the prickly-pear.

[4] *Teredo navalis* is a small worm.

[5] *Spermophilus:* to this family belong the gopher and ground-squirrel.

[6] *Icterus:* the oriole.

[7] *Oreortyx pictus:* mountain quail.

Chapter IV.

[1] The commercial development of Los Angeles dates back to the coming of the Americans. In 1818, Joseph Chapman, the first American settler, reached Los Angeles; in 1826, fifteen trappers, headed by Jedediah Smith came overland; by 1830 many merchants had opened stores near the plaza.

[2] Mission San Gabriel was founded in 1771; San Juan Capistrano in 1775. The plaza church was begun in 1818 and completed in 1822; this present structure was remodeled in 1861 from the original building.

Chapter V.

[1] *Ranchos,* not to exceed three square leagues, were granted after 1786 to private individuals who were required to erect thereon a house and keep at least 2,000 head of livestock on their property.

[2] Many of these luxuries were brought around the Horn by Yankee trading vessels who put in at San Pedro and sold their wares to the *rancheros* who came from all over the country to make purchases in exchange for hides and tallow.

[3] This remarkable woman, Eulalia Perez de Guillen, who at one time owned the land on which Pasadena is now located, was probably about 141 years old at the time of Salvator's visit to Los Angeles. She

was born in Loreto in 1735 and died at San Gabriel in 1878.

Chapter VI.

[1] Several Indian outbreaks were experienced by the settlers, especially south of Los Angeles. Warner's Ranch was the scene of a serious Indian raid, when the buildings were destroyed. Two California girls in San Diego were also captured by Indians.

[2] The Southern Californian Indians belong to the Shoshonean tribe, but were usually referred to as Serranos, or mountaineers. Local groups, however, took the name of the nearest mission. Thus, there were the *San Fernandiños* (San Fernando); the *Gabrieliños* (San Gabriel); the *Juaneños* (San Juan Capistrano); and the Luiseños (San Luis Rey).

Chapter VII.

[1] On October 24, 1871, down in Nigger Alley near the present plaza occurred a serious Chinese war in which one American was killed and several Chinese massacred. For a full account see Willard: *History of Los Angeles,* p. 285-288.

Chapter IX.

[1] In 1862-1863 the rainfall was only four inches; the following year there was practically no rain. Cattle died off by the thousands on ranges, while whole herds were sold at $.37½ a head. This drought ruined many of the cattle barons, and led to the splitting-up of many of the great ranches.

[2] Gospel Swamp: a corn-producing settlement near Anaheim Landing.

Chapter X.

[1] Los Nietos was one of the earliest land grants in Southern California. It included all land between the Santa Ana and San Gabriel Rivers from the mountains to the sea, and was granted by Governor Fages to Manuel Nieto in 1784.

Chapter XII.

[1] Orange trees were first introduced at San Gabriel by the mission fathers.

[2] Jean Vignes came from Bordeaux, France, to Los Angeles in 1829 and later set out the Aliso Vineyard to oranges.

[3] William Wolfskill of Kentucky came across the plains to Los Angeles in 1831, and planted a large vineyard southeast of the city. In 1841 he began raising oranges, soon developing this industry on a large scale.

[4] This was Matthew Keller, known as Don Mateo, who had a shop on the corner of Los Angeles and Commercial Streets. He was famed as a maker of fancy wines.

[5] La Perouse introduced the potato into California from Chili, in 1786, by giving seeds to the mission fathers.

[6] *Choyas (chollas):* a form of cacti.

[7] *Coenothus (ceanothus):* a small flowering shrub bearing white or blue blossoms.

[8] Judge Robert M. Widney came to Los Angeles from Ohio in 1868, subsequently playing an important part in the city's activities.

Chapter XIV.

[1] The silk industry, in 1864, was offered by the State Legislature, a bounty of $250 for every 5,000 two-year-old mulberry trees.

Chapter XV.

[1] *Alfilerilla: alfileria,* or geranium seed.

[2] Jotham Bixby purchased Los Cerritos Rancho in 1866 for $.80 an acre and made it one of the great sheep-ranches of the state. Prior to his ownership it had belonged to Don Juan Temple who built the picturesque old adobe that is still standing on Cerritos Hill, near the Virginia Country club. In Juan Temple's day Cerritos ran 15,000 cattle, 7,000 sheep, and 3,000 horses.

[3] For an interesting account of old brands used in Los Angeles County see August, 1928, number of *Touring Topics.*

Chapter XVII.

[1] Bancroft in his *Hist. of Calif.,* Vol. IV, 297, gives the date of the discovery of gold in Southern California as March, 1842, and locates the first strike on the San Francisco Rancho, owned by the Del Valle Family. This is also the date usually given by modern writers on California.

[2] Gold was discovered in 1853-1854 in the foothills of the Santa Anita Rancho and San Gabriel Canyon, over $2,000,000 being extracted.

[3] This seepage is still evident although the miniature oil-wells emerging from the ocean at Summerland, between Ventura and Santa Barbara, have tapped this subterranean oil-field.

[4] Dr. Vincent Gelcich was a pioneer surgeon of Los Angeles.

Chapter XIX.

[1] The Farmers and Merchants Bank was opened in April, 1871; in 1874 it moved to the west side of Main Street opposite the Bella Union Hotel. After 1883, it was located at the corner of Commercial and Main Streets.

[2] The Temple and Workman Bank opened November 23, 1871, and closed in 1875. It was located at Spring and Main Streets.

[3] The Commercial Bank, later the First National, opened in January, 1875, and was located on Main Street between Commercial and Requena.

[4] The Los Angeles County Bank was started in July, 1874, its first quarters being a room adjoining the Bella Union Hotel on Main Street near Commercial.

Chapter XXIII.

[1] San Gabriel was founded September 8, 1771.

[2] *The City of the Queen of the Angels* was founded September 4, 1781. Bancroft, *Hist. of Cal., I,* 345.

[3] These settlers were: José de Lara; José Antonio Navarro, Basilio Rosas, Antonio Mesa, Antonio Villavicencio, José Vanegas, Alejandro Rosas, Pablo Rodriguez, Manuel Camero, Luis Quintero, José Moreno, and Antonio Miranda.

[4] *Vara:* Spanish term of measurement equivalent to 2.78 feet.

[5] By a decree of May 23, 1835 (not 1836) Los Angeles became for a short time the capital of Alta Cal. See Bancroft, *Hist. of Cal.,* III, 292, 416.

[6] It was in 1845 that Los Angeles was again made the capital under the governorship of Pio Pico. Bancroft, *Hist. of Cal.,* IV, 519.

[7] On January 8, 1847, Mexican and American forces clashed at San Gabriel when the Californians attempted to check the invading American forces. Again on January 9, a second skirmish took place close to Los Angeles.

[8] California passed into American hands after Captain John C. Fremont, on June 14, 1846, captured Sonoma from the Mexican forces under General Vallejo. Formal possession dates from January 13, 1849, when articles of capitulation were signed at Cahuenga.

Chapter XXIV.

[1] W. H. Perry's house was located east of the river, near the Macy Street bridge. He was one of the prominent citizens of that period.

[2] Doña Arcadia de Baker, neé Bandini, was first the wife of Abel Stearns and later, of Colonel Baker. The Baker house was a large adobe, located on the site of the present Baker Block on lower Main Street.

[3] *Araucaria excelsa,* the Norfolk Island Pine; *Ficus elastica,* the rubber-tree.

[4] The Los Angeles and Independence Ry. opened on December 1, 1875; its depot was on San Pedro Street near Wolfskill Lane. The Southern Pacific Depot, until 1878, was at Alameda and Commercial Streets.

[5] Charity Street is now Grand Avenue.

[6] La Ballona, an enormous land grant of 14,000 acres, extended from the city limits to Santa Monica, and was owned by the Machado family.

[7] Bellview Terrace, owned by Prudent Beaudry, mayor of Los Angeles, was near Hope and Fifth Sts.

[8] City Gardens was a six or seven acre tract located at San Pedro and Eighth Streets where F. X. Eberle operated an amusement park.

[9] John G. Downey came to Los Angeles in 1850 and opened a store on Los Angeles and Commercial Streets. Later he became governor of California.

[10] This was a chapel or *asistencia,* but never a mission.

[11] Sancta Vibiana Cathedral was erected in 1871 on Main Street, south of Second.

[12] The old high school, located on the hill above North Broadway, was erected in 1873 and was long an early landmark.

[13] The Pico House was built in 1869 on the site of the old Carrillo residence on Main Street opposite the plaza. Later it was known as the National Hotel.

[14] The Lafayette Hotel was on Main Street opposite the Bella Union. The name Bella Union Hotel was changed later to the Clarendon Hotel, and, finally, to the St. Charles. The United States Hotel, one of the oldest in the city, extended from Main to Los Angeles Streets near the plaza. Later it became the National Hotel.

[15] This large holding had been purchased as sheep-pasturage in 1863 for $.50 an acre by Dr. J. S. Griffin, a prominent surgeon of Los Angeles.

[16] Washington Gardens. A park of 35 acres, owned by D. V. Waldron and located on the southwest corner of Main and Washington Streets. It was later known as Chute's Park.

[17] Agricultural Park: Now Exposition Park.

[18] William Wolfskill came overland in 1831 to Los Angeles and became one of its prominent settlers. One of the first to plant oranges, his orchard on Alameda Street was long a famous landmark.

[19] Dr. Shaw's Los Angeles Nursery was on San Pedro Street near Adams. Dr. Shaw made a trip to Nicaragua purposely to secure orange seeds.

[20] This was Cameron E. Thom.

Chapter XXV.

[1] *La Toma* (probably *La Loma*) was a dam in the Los Angeles River north of the North Broadway bridge from which irrigation ditches were dug to water the vineyards.

[2] *La Cordillera de los Verdugos:* The Verdugo Hills.

[3] *La Calera:* Lime-kiln; possibly a lime-kiln known to have existed on Los Felis Rancho.

[4] *El Alomar (Tuhunga):* A location near Saugus characterized by its cottonwoods (alamos).

[5] *Cañon de los Negros* is the Canyon of the Negroes in the San Bernardino Range.

[6] *Portesuelo de Cahuenga:* The Cahuenga Pass.

[7] *La Talaya (probably La Talaga),* meaning a small valley.

[8] *Potrero de los Felizes los Pescaditos:* Pescaditos was a favorite fishing place on the east side of the river opposite Griffith Park.

[9] *Cañada de Francisco María,* the

most westerly canyon in the Chevy Chase district in Glendale.

[10] *Piedra Gorda:* Eagle Rock.

[11] *Ciénega del Garvanza* was at York and Eagle Rock Boulevards; *Sacate de Matico*—so-named for its bunch grass.

[12] *Aguaje del Garvanza:* Garvanza Springs.

[13] *Ramita ceniza,* meaning ash-colored weeds.

[14] *Cañada Grande:* or big canyon, near Whittier.

[15] *El Valle de la Rosa de Castilla* (valley of the wild rose bushes): Rancho Rosa Castilla, near Coyote Pass.

[16] *Tierra arrastrada:* harrowed ground.

[17] *Portesuelo de la Rosa de Castilla:* Coyote Pass.

[18] *Puente de la Viejas:* Bridge of the Old Women.

[19] *La Loma Alta,* the high hill.

Chapter XXVI.

[1] *Rancho de la Laguna* was owned by the Lugo family.

Chapter XXVII.

[1] Mission San Gabriel had at one time been one of the richest and largest of the Californian Missions, its lands extending from the ocean to the mountains. It was visited by the majority of travellers who came to Los Angeles.

[2] These were: L. J. Rose of Sunny Slope, near San Gabriel Mission, who produced famous wines and brandies and for whom the town of Rosemead is named; Benjamin D. Wilson, of Lake Vineyard; Edward J. C. Kewen, who owned 450 acres near the mission mill including land where the Huntington Hotel now stands; John De Barth Shorb of Philadelphia, who owned the property on which the town of Shorb now stands; Colonel James B. Winston, who came to California in 1852, and who was one of the prominent local physicians; Dr. Thomas White; L. H. Titus, whose vineyard was near San Gabriel close to that of Rose; and Judge Volney E. Howard, who settled at San Gabriel in the late fifties near the estate of E. J. C. Kewen.

[3] E. J. Baldwin purchased the Santa Anita Rancho in 1875, subsequently making it one of the most noted stock-farms in the State.

[4] Benjamin D. Wilson came to California from Tennessee in 1871 and purchased what later was known as Lake Vineyard, in the San Gabriel Valley

[5] *Fulicas:* water-fowl.

[6] *El Molino.* This mill was formerly the property of Mission San Gabriel, having been built by Father Zalvidea to handle the grains harvested at his flourishing mission.

[7] This was General George H. Stoneman.

[8] *Cereus:* a giant cactus somewhat resembling a wax candle.

[9] The Indiana Colony. A group of colonists from Indiana formed an association and purchased, in 1873, about four thousand acres of the San Pasqual Rancho. This was divided into tracts suitable for orange groves, varying in size from fifteen to sixty acres.

Chapter XXVIII.

[1] Mission San Fernando was founded in 1798.

[2] San Fernando Mission was leased to General Andrés Pico and Juan Manso in 1845 for $1,120. Pico later made his home here in the former abode of the fathers.

[3] Duarte was founded in 1851 by Henry Dalton, who opened a subdivision.

[4] The Azusa Ranch of nine or ten thousand acres was owned by Henry Dalton.

[5] El Monte, so named from the thick willow forests nearby. It was the oldest American settlement in California, being notable as the end of the overland trail.

[6] In 1865, John G. Downey subdivided a section of his rancho, Santa Gertrudis, and created the town of Downey.

[7] Los Nietos was named for the Nietos family to whom, in 1784, was granted the extensive rancho of this name.

[8] Spadra. Of importance as a railroad terminal.

[9] *Ciénaga:* low, or marshy lands; the form *ciénega* was used locally.

[10] In December, 1845, this great mission was sold for $710 to McKinley and Foster. Foster retained possession and lived there for 20 years.

Chapter XXIX.

[1] Major Hancock's asphalt works were located near La Brea Pit adjoining Wilshire Boulevard.

Chapter XXX.

[1] Compton was laid out in 1869; it was named for the Reverend G. D. Compton, an early settler.

[2] This was the General Phineas Banning home near Anaheim Boulevard in Wilmington.

[3] In 1873, B. D. Wilson purchased from the government for less than $10,000 Drum Barracks, which had cost over $1,000,000 to erect; this then became Wilson College.

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